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on Iron Ore
Fourth session
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Item 3 of the provisional agenda

REVIEW OF IRON ORE STATISTICS

Iron Ore Statistics - 1980-1989

Prepared by the UNCTAD secretariat

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INTRODUCTION

1. This document is issued under the UNCTAD statistical programme on minerals and metal statistics. It contains information, updated to the extent possible, covering the period 1980-1989. This compendium includes new tables with new and more detailed information, with a view to improving the quality and coverage of the iron ore statistics prepared by the UNCTAD secretariat.

2. Improvements made in this document take into account the suggestions made by, and the discussions held on, statistical issues during past sessions of the Intergovernmental Group of Experts on Iron Ore.

3. The present compilation of iron ore statistics is primarily based on the replies to the UNCTAD questionnaire on iron ore. The questionnaire was sent to all member States of UNCTAD and to the Commission of the European Communities on 19 January 1990. As of 10 July 1990, 35 countries in addition to the Commission had responded to the questionnaire. Their replies are summarized in annex A and B.

4. Data for countries which have not responded to the questionnaire were compiled on the basis of statistics available in the UNCTAD Data Bank, which collates data on production and trade of several commodities, and/or information directly supplied by Governments in the form of magnetic tapes or national statistical publications to the United Nations Statistical Office. Relevant publications of other international organizations have been used to supplement these data.

5. As far as possible, an attempt was made to tabulate comparable statistics taking into account uniform criteria and definitions. Nevertheless, there is scope for further improvements in this area. The regular and widespread use of the UNCTAD questionnaire has proved very useful and remains an important tool to achieve this aim.

6. Although a major aim of the secretariat is to achieve full geographical coverage of its statistics, the new tables in this document present original data exclusively based on the replies to the questionnaire, and hence lack full geographical coverage. It is hoped, however, that gradually a greater number of countries will respond to the questionnaire.

7. This document has 26 tables, four more than in the previous version. The new tables provide data on: world exports of iron ore in iron content; iron ore imports by the EEC member countries by origin and destination in 1989; iron ore imports by Japan by origin in 1989; and, iron ore imports by Eastern Europe countries by origin and destination in 1989.

EXPLANATORY NOTES

1. The following symbols are applicable to all tables:

   (a) The symbol "#" indicates that the data concerned have been supplied by Governments (questionnaires).

   (b) The symbol "-" indicates that the amount is nil or negligible.

   (c) The symbol ".." indicates that information is not available.

   (d) The letter "E" indicates that data have been estimated by the UNCTAD secretariat in the absence of data supplied by Governments and when data are not available from official national publications.

   (e) The term "tons" refers to metric tons.

   (f) The term "dollars" refers to United States dollars.

2. All data pertaining to trade values have been converted to United States dollars using exchange rates indicated by Governments wherever possible. Where Governments have supplied trade data without indicating the exchange rate in the national currency, the data have been converted on the basis of exchange rates supplied by IMF.

3. All data pertaining to export values are on f.o.b. basis; data on import values are on a c.i.f. basis except for Canada, where they are on a f.o.b. basis.

4. Data on apparent consumption relate to production plus imports minus exports.

5. As regards iron content estimates, the data were derived on the basis of the following ratios:

Production

67% - Liberia
66.5% - Brazil, Mexico
65% - Mauritania, South Africa, Sweden,Chile
64.5% - Argentina, Peru
64% - Australia, Canada
62% - Venezuela
61.5% - India
60% - Boliviia, Thailand, United States of America, Morroco,
59% - Turkey
58% - Malaysia, Zimbabwe
55% - Bulgaria, Republic of Korea, New Zealand, USSR
54% - Japan
52% - Algeria, Egypt, Portugal
50% - Tunisia, Democratic People's Republic of Korea
46.5% - Spain
45% - Colombia
42% - Norway
34% - Poland
33% - Bulgaria, China
32% - Yugoslavia, German Democratic Republic, Austria
31.5% - France
30% - Romania
27% - Czechoslovakia
22% - United Kingdom
14% - Germany, Federal Republic of

Exports

67% - Liberia
66.5% - Brazil, Mexico
66% - Turkey
65% - Mauritania, South Africa, Sweden, Chile
64.5% - Peru
64% - Australia, Canada
63% - Venezuela
61.5% - India
60% - Boliviia, United States of America, Morroco, USSR
58% - Malaysia, Zimbabwe
55% - Republic of Korea, New Zealand
54% - Japan
52% - Algeria
50% - Tunisia
46.5% - Spain
42% - Norway
32% - Yugoslavia, Austria
31.5% - France
22% - United Kingdom
15% - Germany, Federal Republic of

6. Complementary sources

Statistical Yearbook, and World Steel in figures, International Iron and Steel Institute, Brussels.

Annual Bulletin of Steel Statistics for Europe, ECE, United Nations, Geneva.

Monthly Report of the Iron and Steel Statistics, Japan Iron and Steel Federation, Tokyo.

Siderurgia Latino-Americana, Instituto Latino-Americano del Fierro y Acero, Santiago.

Iron and Steel Statistical Yearbook, Eurostat, EEC, Brussels.

Direct from Midrex, Midrex Corporation, North Carolina, United States.

READEX FICHE

SURVEY OF THE QUALITY AND USEFULNESS OF UNCTAD PUBLICATIONS AND OF THEIR END-USERS

The UNCTAD secretariat, in the context of its programme evaluation activities and in response to intergovernmental requests, is seeking the opinions of end-users in order to have basic data for assessing the quality, usefulness and effectiveness of *inter alia* its research reports and publications. As the success of such an exercise is critically dependent on an adequate rate of response we should appreciate it if you would take time to answer the questions below and submit any other comments that you may have concerning the current document.

1. **Title or symbol number of document** . . . . . .

2. **When did you receive the document?** . . . . . .

3. **How did you receive the document?** *(tick one or more boxes)*

Through Permanent Mission to United Nations	( )	From UN bookshop	( )
From ministry or government office	( )	From university libraries	( )
Directly from UNCTAD secretariat	( )	Own request	( )
By participating in an UN/UNCTAD intergovernmental meeting	( )	UNCTAD initiative	( )
By participating in an UN/UNCTAD sponsored training course or seminar	( )	Other (please specify)	. . . . .

4. **For what main purposes do you use the document?** *(tick one or more boxes)*

Policy formulation	( )	Education and training	( )
Analysis and research	( )	Management	( )
Legislation	( )	Other (please specify)	. . . . .
Background information	( )		

5. **How do you rate the document as regards:**

Its usefulness to your work *(tick one box)*

Extremely useful ( ); Very useful ( ); Useful ( ); Marginally useful ( ); Not at all ( ).

Its quality, in terms of the following aspects *(tick one box in each case)*:

	Outstanding	*Excellent*	*Good*	*Adequate*	*Poor*
Presentation and readability	( )	( )	( )	( )	( )
Originality of ideas	( )	( )	( )	( )	( )
Wealth of information	( )	( )	( )	( )	( )
Up-to-date information	( )	( )	( )	( )	( )
Technical accuracy	( )	( )	( )	( )	( )
Quality of analysis, including objectivity	( )	( )	( )	( )	( )
Validity of conclusions	( )	( )	( )	( )	( )
Clarity of recommendations	( )	( )	( )	( )	( )
Comprehensiveness of coverage	( )	( )	( )	( )	( )

6. **Other observations** *(if any)* . . . . . .

. . . . . .

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Finally, we would appreciate it if you could provide the following information about yourself:

Name . . . . . Occupation/Functional title . . . . . .

Address . . . . . .

Your answers are for internal use and will be kept confidential. Thank you for your co-operation.

Please forward the questionnaire to : PROGRAMME CO-ORDINATION AND EVALUATION UNIT
EXECUTIVE DIRECTION AND MANAGEMENT
UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT
PALAIS DES NATIONS – CH-1211 GENEVA 10

Table 1

IRON ORE : Production

(000 tons, natural weight)

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
WORLD	**924224**	**889588**	**816776**	**777467**	**873364**	**907820**	**910359**	**930488**	**956557**	**976533**
DEVELOPED MARKET ECONOMY COUNTRIES	**332505**	**309909**	**242177**	**210798**	**260479**	**266437**	**246690**	**253938**	**262286**	**277328**
AMERICA	**126553**	**127441**	**72672**	**71886**	**92030**	**89328**	**76125**	**84164**	**97924**	**98300**
Canada	48753#	51985#	35592#	33326#	39930#	39798#	36679#	36520#	40409#	40400#
United States	77800	75456	37080	38560	52100	49530	39446	47644	57515	57900
EUROPE	**80028**	**65567**	**53915**	**48324**	**52293**	**51865**	**48866**	**43143**	**40401**	**40609**
EEC	*43668*	*34210*	*30297*	*26850*	*25833*	*24025*	*20970*	*16598*	*14453#*	*14078#*
Belgium-Luxembourg	605	492	40	40	-	-	-	-	-	-
France	29200	21489	19670	16180	15030	14480	12560	11566	9872#	9319#
Germany,Federal Republic of	1945	1574	1308	980	980	1030	717	247	70#	102#
Greece	1500	1280	500	1300	1452	1712	1300E	..	..	..
Italy	216	120	10	-	-	-	-	-	-	-
Portugal	55	40	40	30	30	70	50	30	25	15E
Spain	9227#	8483#	8261#	7940#	7961#	6463#	6054#	4492#	4262#	4610#
United Kingdom	920	732	468	380	380	270	289	263	224#	32#
EFTA	*36360*	*31357*	*23618*	*21474*	*26460*	*27840*	*27896*	*26545*	*25948*	*26531*
Austria	3200	3048	3330	3540	3600	3300	3120#	3030#	2300#	2410#
Finland	780	864	880	860	900	800	643#	648	557#	-
Norway	3880	4068	3270	3540	3840	3470	3660	3140	2644#	2358#
Sweden	28500	23377	16138	13534	18120	20270	20473#	19707	20447	21763#
SOUTH AFRICA	**26312**	**28319**	**24554**	**16605**	**24496**	**24939**	**24483**	**22008#**	**25247#**	**29958#**
ASIA	**478**	**441**	**362**	**298**	**324**	**338**	**291**	**295**	**278**	**251**
Japan	478	441	362	298	324	338	291#	295	278	251
OCEANIA	**99134**	**88141**	**90674**	**73685**	**91336**	**99967**	**96925**	**104328**	**98436**	**108210**
Australia	95534#	84661#	87694#	71485#	89046#	97447#	94015#	101748#	96084#	105810#
New Zealand	3600	3480	2980	2200	2290	2520	2910	2580	2352#	2400E
DEVELOPING COUNTRIES AND TERRITORIES	**219167**	**218507**	**210135**	**197431**	**229867**	**249211**	**258660**	**267688**	**277886**	**284305**
AFRICA	**34148**	**34440**	**33712**	**29714**	**32583**	**32543**	**32150**	**30827#**	**29982#**	**32469E**
Algeria	3454	3481	3892	3684	3664	3380	3360#	3575#	3400E	2748#
Egypt	1500	1400E	2200	2060	1889	2120	1999	2112#	2400#	2400E
Liberia	18250	19540	18000	15410	16100	16120	15600	13806#	12808#	13400E
Mauritania	8939#	8473#	8210#	6600	9000#	9203#	9262#	9120#	9782#	12114#
Morocco	60	50	230	300	200	140	200	204	117#	126#
Sierra Leone	- E	-	10	360	420	70	-	-	-	- E
Tunisia	385	400	270	300	310	310	310	290	226#	210E
Zimbabwe	1560	1096	900E	1000E	1000E	1200E	1419#	1720#	1249#	1471#
AMERICA	**136263**	**133993**	**125222**	**120820**	**146460**	**163254**	**165596**	**171788**	**185548**	**192671**
Argentina	900	810	600	1000	700	900	710	800	1162#	677#
Bolivia	-	-	-	-	-	-	-	-	15#	14#
Brazil	97240	97900	93100	92100	112100	128200	129034	134105#	146000#	153743#
Chile	9310	7650	5760	5170	5590	5840	6326#	6131#	7293#	8112#
Colombia	506#	433#	470#	456#	441#	455#	523#	615	615#	600
Mexico	6500	5600	7660	8420	10543	8103	7581	7374	7830#	7538#
Peru	5705	6069	5931	4225	4031	4992	5195#	5567#	4158#	3935
Venezuela	16102	15531	11701	9449	13055	14764	16207#	17196	18473#	18052#
ASIA	**44252**	**4528**	**46096**	**41879**	**45509**	**47936**	**54296**	**59090**	**56813**	**54728**
India	40000	41122	41997	37584	40764	42545	48821#	53109#	50390#	50000E
Malaysia	380	528	400	100	160	182	208	161	209#	193#
Republic of Korea	545	555	553	591	554	542	525	510	672	344#
Thailand	85	60	30	70	70	94	37#	97	99	100E
Turkey	2707#	2983#	3083#	3501#	3958#	4573#	4705#	5213#	5443#	4091#
Other Asia	535	33	33	33	3	-	-	-	-	- E
EUROPE	**4504**	**4793**	**5105**	**5018**	**5315**	**5478**	**6618**	**5983**	**5543**	**4438**
Yugoslavia	4504	4793	5105	5018#	5315	5478	6618	5983	5543#	4438#

Table 1

IRON ORE : Production

(000 tons, natural weight)

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
COUNTRIES OF EASTERN EUROPE	**251212**	**248752**	**250274**	**250958**	**253188**	**253932**	**256379**	**256842**	**253605**	**246400**
Bulgaria	1886	1754	1552	1803	2063	1985	2179	1857	1826	1613
Czech and Slovak Federal Republic	1927	1935	1861	1903	1869	1824	1784	1798	1773	1780#
German Democratic Republic	51	41	41	40	36	-	-	-	-	-
Hungary	198	196	214	215	193	184	-	-	-	-
Poland	104	105	49	10	11	12	9	6	6	7
Romania	2333	2304	2146	1987	1916	2287	2431	2281	2000#	2000#
USSR	244713	242417	244411	245000	247100	247640	249976	250900	248000#	241000#
SOCIALIST COUNTRIES OF ASIA	**121340**	**112420**	**114190**	**118280**	**129830**	**138240**	**148630**	**152020**	**162780**	**168500**
China	113140	104420	106190	110280	121830	130240	140630	144020	154780	160000E
Democratic Peoples Republic of Korea	8200	8000	8000	8000	8000	8000	8000	8000	8000	8500E

Table 2

IRON ORE : Production

(000 tons, Fe content)

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
WORLD	**515185**	**506964**	**449662**	**425923**	**482416**	**498638**	**500117**	**518105**	**546993**	**559328**
DEVELOPED MARKET ECONOMY COUNTRIES	**194992**	**183105**	**142402**	**124423**	**155394**	**159570**	**149631**	**154652**	**161136**	**170248**
AMERICA	**78253**	**78669**	**44884**	**44325**	**56564**	**54934**	**46995**	**51926**	**60375**	**60596**
Canada	30803#	32641#	22636#	21189#	25304#	25216#	23229#	23340#	25866#	25856#
United States	47450	46028	22248	23136	31260	29718	23766	28586	34509	34740
EUROPE	**36905**	**30497**	**24144**	**21786**	**24577**	**24801**	**24878**	**22044**	**21354**	**21017**
EEC	*15471*	*11903*	*10356*	*9386*	*9101*	*8596*	*7815*	*5816*	*5152*	*5122*
Belgium-Luxembourg	168	137	10	10	-	-	-	-	-	-
France	9052	6662	5901	4854	4309	4529	4198	3566	3119#	2945#
Germany,Federal Republic of	596	488	392	294	294	309	212	68	10#	14#
Greece	645	550	215	559	624	736	559	..	..	..
Italy	67	37	3	-	-	-	-	-	-	-
Portugal	32	23	23	17	17	36	26	15	13#	8
Spain	4372#	3816#	3690#	3553#	3558#	2926#	2761#	2109#	1961#	2148#
United Kingdom	239	190	122	99	99	60	59	58	49#	7#
EFTA	*21734*	*18594*	*13788*	*12400*	*15476*	*16205*	*17063*	*16228*	*16202*	*15895*
Austria	1020	975	1066	1132	1152	1056	1006	976#	744#	781#
Finland	522	579	590	576	594	528	432#	402	373#	-
Norway	2522	2644	2123	2301	2496	2256	2379	2041	1692#	990#
Sweden	17670	14396	10007	8391	11234	12365	13246#	12809	13393#	14124#
SOUTH AFRICA	**17102**	**18407**	**15960**	**10793**	**15922**	**16210**	**15914**	**14297**	**16461**	**19461**
ASIA	**280**	**257**	**209**	**174**	**186**	**197**	**162**	**168**	**158**	**136**
Japan	280	257	209	174	186	197	162	168	158	136
OCEANIA	**62452**	**55275**	**57205**	**47345**	**58145**	**63428**	**61682**	**66217**	**62788**	**69038**
Australia	60437#	53361#	55566#	46135#	56885#	62042#	60082#	64798#	61494#	67718#
New Zealand	2015	1914	1639	1210	1260	1386	1600	1419	1294	1320
DEVELOPING COUNTRIES AND TERRITORIES	**138202**	**135789**	**130207**	**122413**	**142685**	**151441**	**159248**	**169369**	**177076**	**182618**
AFRICA	**20716**	**20831E**	**19869E**	**17524E**	**19592E**	**19514**	**19272**	**19250#**	**18695#**	**20089**
Algeria	1789	1766	1946	1842	1869	1705	1679	1691	1598	1429#
Egypt	750	700E	750E	750E	850E	950	950	1120#	1250#	1250
Liberia	11132	11919	10980	9400	9821	9833	9516	9250	8581	8978
Mauritania	5810#	5808#	5336#	4369#	5850#	5982#	6020#	5928#	6358#	7401#
Morocco	35	29	135	176	116	81	116	116	71#	75#
Sierra Leone	-	E	-	6	192	224E	37	-	-	-
Tunisia	200	208	140	155	158	158	158	131	113	100
Zimbabwe	1000	701	576E	640E	704	768	833#	1014	724#	856#
AMERICA	**88457**	**85048**	**79865**	**77075**	**93485**	**100748**	**103744**	**111036**	**122300**	**126992**
Argentina	393	356	324	540	378	486	383	432	748#	437#
Bolivia	-	-	-	-	-	-	-	-	9	8
Brazil	62220	62636	59584	58944	71744	78323#	80771	87168#	97090#	102241#
Chile	7460	4343	3571	3205	3466	3683	4145#	4017	4278#	5267#
Colombia	228#	195#	212#	205#	198#	205#	235#	399#	277#	270
Mexico	4000	3472	4749	5220	6510	5161	4960	5200	5167#	5013#
Peru	3820	4007	3936	2814	2698	3329	3364#	3674	2684#	2538
Venezuela	10334	10019	7489	6147	8491	9561	9886#	10146	11547#	11218#
ASIA	**27498**	**28232**	**28686**	**26058**	**27907**	**29426**	**34114**	**37169**	**34307**	**33496**
India	25200	25953	26458	23678	25271	26378	30947#	33693#	30929#	30700
Malaysia	213	296	224	56	90	90	118	112	121#	116#
Republic of Korea	266	280	308	364	308	302	297	286	370	193#
Thailand	50	35	18	42	37	56	22	58	59	60
Turkey	1500#	1650#	1660#	1900#	2200#	2600#	2730#	3020#	2828#	2427#
Other Asia	269	18	18	18	1	-	-	-	-	-
EUROPE	**1531**	**1678**	**1787**	**1756**	**1701**	**1753**	**2118**	**1914**	**1774**	**2041**
Yugoslavia	1531	1678	1787	1756	1701	1753	2118	1914	1774	2041#

Table 2

IRON ORE : Production

(000 tons, Fe content)

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
COUNTRIES OF EASTERN EUROPE	**138272**	**134923**	**135887**	**136489**	**137696**	**138043**	**138017**	**139677**	**150608**	**146212**
Bulgaria	622	579	512	595	681	655	719	613	603	533
Czech and Slovak Federal Republic	655	658	633	647	636	620	607	611	603	477#
German Democratic Republic	16	13	13	13	12	-	-	-	-	-
Hungary	77	76	83	84	75	72	-	-	-	-
Poland	35	36	17	3	4	4	3	2	2	2
Romania	467	461	429	397	383	457	486	456	600#	600#
USSR	136400	133100	134200	134750	135905	136235	136202	137995	148800#	144600#
SOCIALIST COUNTRIES OF ASIA	**43719**	**53147**	**41166**	**42598**	**46641**	**49584**	**53221**	**54407**	**58173**	**60250**
China	39599	49147	37166	38598	42641	45584	49221	50407	54173	56000
Democratic Peoples Republic of Korea	4120	4000	4000	4000	4000	4000	4000	4000	4000	4250

Table 3

IRON ORE : Production by Products, 1989

(000 tons, natural weight)

Country	Non-Agglomerated ores						Agglomerated	
	Run of mine	Lumps	Fines	Concentrates	Pellet-feed	Others	Pellets	Sinter
Algeria	2748	-	-	-	-	-	-	-
Argentina	-	-	19	-	-	-	658	-
Austria	1567	-	-	843	-	-	-	-
Bolivia	-	-	-	14	-	-	-	-
Brazil	213540	35616	86620	-	31510	-	26990	-
Czechoslovakia	1780	-	-	-	-	-	-	-
Chile	-	1847	2341	-	-	-	3924	-
France	9319	-	-	-	-	-	-	-
Germany Federal Republic of	102	-	-	-	-	-	-	-
Malaysia	193	-	-	-	-	-	-	-
Mauritania	1824	1700	6503	2087	-	-	-	-
Mexico	15559	-	-	7538	-	-	7582	883
Morocco	-	100	25	-	-	-	-	-
Norway	-	-	-	2358	-	-	-	-
Peru	-	-	-	1482	605	-	1848	-
Spain	4610	-	-	-	-	-	-	-
Sweden	-	2172	8857	708	-	-	10026	-
Turkey	2979	-	-	326	-	-	786	-
United Kingdom	32	-	-	-	-	-	-	-
Venezuela	18410	3727	14325	-	-	-	-	-
Yugoslavia	357	-	-	4020	-	-	61	3780
Zimbabwe	1471	1025	446	-	-	-	-	-

Table 4

PELLETS : Production

(000 tons)

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
WORLD	**187554**	**198640**	**155944**	**169953**	**199298**	**203710**	**199581**	**214108**	**230362**	**235465**
DEVELOPED MARKET ECONOMY COUNTRIES	**106609**	**106008**	**63366**	**74996**	**93357**	**92676**	**85149**	**93412**	**103890**	**107129**
AMERICA	**86872**	**91203**	**49367**	**60313**	**73466**	**71041**	**64763**	**72626**	**82366**	**84007**
Canada	24872#	26203#	16367#	16451#	23920#	23861#	24120#	26291#	26496#	28007
United States	62000	65000	33000	43862	49546	47180	40643	46335	55870	56000E
EUROPE	**10275**	**7788**	**7555**	**8587**	**13290**	**14896**	**14542**	**14852**	**15015**	**16494**
EEC	*700*	*700*	*700*	*700*	*4304*	*4213*	*4000*	*4200*	*4506*	*4588*
Belgium-Luxembourg	700E	700E	700E	700	604	613	500	500	710#	588#
Netherlands	..	..	..	..	3700	3600	3500	3700	3796#	4000#
EFTA	9575	*7088*	6855	*7887*	*8986*	*10683*	*10542#*	*10652*	*10509#*	*11906#*
Finland	287	306	333	332	338	140	-	-	-	480#
Norway	2600E	2600E	2600E	2600	2100	1800	1700	1500	1400#	1400
Sweden	6688	4182	3922	4955	6548	8743	8842#	9152	9109#	10026#
ASIA	**4171**	**3130**	**3123**	**3053**	**3112**	**3014**	**2506**	**2625**	**3109**	**3128**
Japan	4171	3130	3123	3053	3112	3014	2506	2625	3109#	3128#
OCEANIA	**5291**	**3887**	**3321**	**3043**	**3489**	**3725**	**3338**	**3309**	**3400**	**3500**
Australia	5291#	3887#	3321#	3043#	3489#	3725#	3338#	3309#	3400E	3500E
DEVELOPING COUNTRIES AND TERRITORIES	**27600**	**36499**	**34512**	**32677**	**40331**	**42414**	**44082**	**47346**	**53637**	**54586**
AFRICA	**3500**	**3500**	**3500**	**3500**	**2600**	**3000**	**2700**	**3060**	**3390**	**3150**
Liberia	3500E	3500E	3500E	3500	2600	3000	2700	3060#	3215#	3000
Nigeria	..	..	..	..	..	..	..	..	175#	150E
AMERICA	**23069**	**32765**	**30937**	**29102**	**37661**	**38798**	**40103**	**42766**	**45273**	**45702**
Argentina	312	374	616	546	465	495	646	465	597	658#
Brazil	10936	17797	15604	14480	22290	22619	24268	24852	26084#	26990#
Chile	3178	3266	3376	3072	3371	3607	3317	3694#	4073#	3924#
Mexico	5307	5931	6566	6403	7356	6640	6663#	7400#	7937#	7582#
Peru	1564	1697	1482	1101	995	1785	1916	2011	1774#	1848
Venezuela	1772	3700	3293#	3500	3184	3652	3293#	4344#	4808#	4700E
ASIA	**944**	**148**	-	-	-	**535**	**1203**	**1464**	**4949**	**5673**
Bahrain	-	-	-	-	-	400	500	-	2500E	3000E
India	944	148	-	-	-	100	200	600	1467#	1887
Turkey	-	-	-	-	-	35#	503#	864#	982#	786#
EUROPE	**87**	**86**	**75**	**75**	**70**	**81**	**76**	**56**	**25**	**61**
Yugoslavia	87	86	75	75	70	81	76	56	25#	61#
COUNTRIES OF EASTERN EUROPE	**50925**	**54123**	**55976**	**60000**	**63300**	**65830**	**66730**	**69030**	**68235**	**68950**
Czech and Slovak Federal Republic	31	100E	150E	200E	200E	223	230	230E	262#	250E
USSR	50894	54023	55826	59800	63100	65607	66500	68800	67973#	68700#
SOCIALIST COUNTRIES OF ASIA	**2420**	**2010**	**2090**	**2280**	**2310**	**2790**	**3620**	**4320**	**4600**	**4800**
China	2420	2010	2090	2280	2310	2790	3620	4320	4600E	4800E

Table 5

SINTER : Production

(000 tons)

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
WORLD	**571931**	**555628**	**527637**	**516290**	**551479**	**548157**	**544902**	**537806**	**564808**	**567896**
DEVELOPED MARKET ECONOMY COUNTRIES	**276259**	**265952**	**237519**	**218914**	**237443**	**238380**	**218590**	**208920**	**228731**	**235725**
AMERICA	**27872**	**28383**	**17806**	**18436**	**19904**	**18838**	**15361**	**15854**	**16893**	**16800**
Canada	2574#	2114#	1392#	2021#	2727#	2574#	2114#	1392#	1396#	1800#
United States	25298	26269	16414	16415	17177	16264	13247	14462	15497	15000E
EUROPE	**136477**	**133237**	**121010**	**109337**	**117820**	**119521**	**109947**	**101346**	**110864**	**114535**
EEC	*125244*	*122404*	*110920*	*99129*	*107376*	*109395*	*100207*	*92012*	*101790*	*105020*
Belgium-Luxembourg	20377	18741	18187	15707	17340	16847	15513	15301	16556#	16116#
France	32896	29751	26076	22776	23960	24556	20873	15302	21477#	21378#
Germany,Federal Republic of	37503	35734	30581	26855	30827	30929	29311	26140	27833#	29753#
Italy	14613	14382	14500E	12656	13630	14515	13478	13008	13071#	14200E
Netherlands	2735	2979	2508	2653	3523	3742	3706	3682	3901#	3668#
Portugal	372	357	360E	360E	360E	477	492	429	452#	395#
Spain	8993	9079	8567	8253	7410	7465	6919	6600	5433#	6228#
United Kingdom	7755	11381	10141	9869	10326	10864	9915	11550	13067#	13282#
EFTA	*11233*	*10833*	*10090*	*10208*	*10444*	*10126*	*9740*	*9334E*	*9074E*	*9515E*
Austria	5664	5785	5346	5551	5866	3696	5259#	4814	4431	4775
Finland	2854	2940	3005	2809	2854	2637	2761#	2837	2970#	3060#
Norway	868	1000E	711	732	627	666	620	633	673#	680E
Sweden	1847	1108	1028	1116	1097	1127	1100	1050E	1000E	1000E
ASIA	**105995**	**98149**	**93041**	**85710**	**93947**	**93929**	**87509**	**86447**	**94933**	**98190**
Japan	105995	98149	93041	85710	93947	93929	87509	86447	94933#	98190#
OCEANIA	**5915**	**6183**	**5662**	**5431**	**5772**	**6092**	**5773**	**5273**	**6041**	**6200**
Australia	5915	6183	5662	5431	5772	6092	5773	5273	6041	6200E
DEVELOPING COUNTRIES AND TERRITORIES	**30191**	**30270**	**31986**	**34143**	**39895**	**42410**	**45499**	**47528**	**53829**	**53911**
AFRICA	-	-	-	-	-	-	**2845**	**2680**	**4621**	**4639**
Algeria	-	-	-	-	-	-	2670#	2500	2600E	2600E
Egypt	-	-	-	-	-	-	-	-	1862#	1900E
Zimbabwe	-	-	-	-	-	-	175#	180E	159#	139#
AMERICA	**14617**	**13198**	**14615**	**16689**	**21095**	**23387**	**24019**	**24253**	**27095**	**27511**
Argentina	666	809	833	815	820	876	881	904	811	928#
Brazil	12048	10629	12347	14417	18880	21000#	21471	21871#	24952#	25300E
Colombia	406	315	338	361	259	324	390	405	396	400E
Mexico	1214	1157	1097	1096	1136	1187	1277	1073	936#	883#
Venezuela	283	288	-	-	-	-	-	-	-	-
ASIA	**12260**	**13110**	**13478**	**13449**	**14736**	**14718**	**14730**	**16839**	**18336**	**17931**
India	5902	7039	7600	7480	8102	8115	8134	8669	9315	10189
Philippines	4264	3800E	3200E	3100E	3600E	3300E	3680	4202	4764	4600
Turkey	2094#	2271#	2678#	2869#	3034#	3303#	2916#	3968#	4257#	3192#
EUROPE	**3314**	**3962**	**3893**	**4005**	**4064**	**4305**	**3905**	**3756**	**3777**	**3780**
Yugoslavia	3314#	3962#	3893#	4005#	4064#	4305#	3905#	3756#	3777#	3780#
COUNTRIES OF EASTERN EUROPE	**207881**	**206496**	**202062**	**204613**	**207381**	**199187**	**207893**	**201948**	**199248**	**195260**
Bulgaria	2622	2700E	3000E	3000E	3000E	3196	3000	2717	2257	2400E
Czech and Slovak Federal Republic	15527	15007	14747	14315	13587	14008	14150	13000	12464	13339
German Democratic Republic	3155	3133	3063	3168	3279	3148	3296	3207	3346	3199
Hungary	4344	4106	4224	4001	3591	3332	3342	3023	2875	2900#
Poland	17714	14366	13168	14100E	15127	14586	15618#	15401	14054#	12993
Romania	12701	12527	12014	11529	13797	13570	14021	14000E	13880#	13002#
USSR	151818	154657	151846	154500	155000E	147347	154466	150600	150342#	147407#
SOCIALIST COUNTRIES OF ASIA	**57600**	**52910**	**56070**	**58620**	**66760**	**68180**	**72920**	**79410**	**83000**	**83000**
China	57600	52910	56070	58620	66760	68180	72920	79410	83000E	83000E

Table 6

IRON ORE: Exports

(000 tons, natural weight)

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
WORLD	**382542**	**370194**	**325387**	**313614**	**372501**	**376577**	**364404**	**369222**	**402134**	**413573**
DEVELOPED MARKET ECONOMY COUNTRIES	**175729**	**163782**	**139439**	**136716**	**162791**	**164202**	**151980**	**149336**	**169294**	**175560**
AMERICA	**44792**	**47070**	**30429**	**28619**	**35785**	**37238**	**35542**	**34837**	**35808**	**35572**
Canada	38992	41436	27201	24778	30712	32124	30995	29662	30523#	30222#
United States	5800	5634	3228	3841	5073	5114	4547	5175	5285	5350
EUROPE	**34824**	**29027**	**22644**	**23785**	**27456**	**27724**	**25693**	**25142**	**25550**	**24692**
EEC	*11089*	*7819*	*7878*	*6646*	*6757*	*6843*	*6020*	*5849*	*6263#*	*5243#*
Belgium-Luxembourg	60	19	-	-	-	15	1	3	7#	11#
Denmark	9	9	15	12	7	7	5	3	4#	2#
France	8653	6378	5837	5031	4752	4628	4169	3740	3725#	3462#
Germany,Federal Republic of	3	6	6	8	3	3	5	6	20#	7#
Italy	-	-	1	1	-	1	-	-	- #	- #
Netherlands	274	240	149	14	22	55	49	105	223	127
Spain	2088	1147	1869	1579	1973	2128	1791	1991	2282#	1632#
United Kingdom	2	20	1	1	-	6	1	1	2#	2#
EFTA	*23735*	*21208*	*14766*	*17139*	*20699*	*20881*	*19673*	*19293*	*19287*	*19449*
Austria	-	-	-	-	1	-	8	1	-	-
Finland	15	23	-	-	-	-	-	-	-	-
Norway	2722	3482	2166	2945	3083	2578	2532	2530	1757#	1987#
Sweden	20998	17703	12597	14194	17615	18303	17133#	16762	17530#	17462#
SOUTH AFRICA	**13140**	**13714**	**11356**	**7811**	**11870**	**10226**	**8850**	**8802**	**11503**	**14566**
OCEANIA	**82973**	**73971**	**75010**	**76501**	**87680**	**89014**	**81895**	**80555**	**96433#**	**100730E**
Australia	79754#	71147#	72711#	74039#	85480#	86914#	79678#	78594#	94969#	99330#
New Zealand	3219	2824	2299	2462	2200	2100	2217	1961	1464#	1400E
DEVELOPING COUNTRIES AND TERRITORIES	**158940**	**161780**	**142612**	**133893**	**163788**	**168495**	**166256**	**174453**	**189777**	**198133**
AFRICA	**27500**	**31138**	**25477**	**24987**	**27770**	**25540**	**22920**	**22525**	**23869**	**23992**
Algeria	1400	1479	1420	1398	974	7	48	13	-	20#
Liberia	17199	20694	16304	15704	16870	16100	13940	13510	13779	12747
Mauritania	8725#	8860#	7753	7385#	9526#	9333#	8929	9002	10005#	11138#
Morocco	-	5	-	-	-	-	-	-	80#	82#
Tunisia	-	-	-	-	-	-	3	-	5	5E
Other Africa	176E	100	-	500	400	100	-	-	-	-
AMERICA	**102389**	**104377**	**89506**	**85106**	**106718**	**110855**	**111521**	**118745**	**128843**	**137539**
Bolivia	-	-	-	-	-	-	-	-	15	25#
Brazil	78857	80984	72712	69961	88571#	91781#	92288#	97288#	105303#	111641#
Chile	7582	5640	5600	4700	5600	4800	4846#	5329#	6397#	7422#
Peru	4227	5348	4612	4200	4091	5242	4360#	4430	4668#	4014
Venezuela	11723	12405	6582	6245	8456	9032	10027#	11698	12460#	14437#
ASIA	**29051**	**26236**	**27608**	**23800**	**29300**	**32100**	**31815**	**33183**	**37066**	**36602**
India	24768	22403	24372	20700	25700	28800	28135#	28981	32300E	32000E
Indonesia	9	2	11	-	-	-	-	-	-	-
Malaysia	10	31	25	-	-	-	-	-	2#	2#
Philippines	4264	3800E	3200E	3100E	3600E	3300E	3680	4202	4764	4600
EUROPE	-	**29**	**21**	- -	-	-	-	-	-	**8#**
Yugoslavia	-	29	21	-	-	-	-	-	-	8#
COUNTRIES OF EASTERN EUROPE	**47873**	**44632**	**43336**	**43005**	**45922**	**43880**	**46168**	**45433**	**43063**	**39880**
USSR	46873	44132	42836	42805	45922	43880	46168#	45433#	43063#	39880#

Table 7

IRON ORE: Exports

(000 tons, Fe content)

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
WORLD	**237519**	**227469**	**202553**	**191362**	**227542**	**230139**	**226367**	**227198**	**251579**	**258681**
DEVELOPED MARKET ECONOMY COUNTRIES	**109939**	**102481**	**90179**	**84658**	**99946**	**99393**	**93234**	**92816**	**105780**	**109905**
AMERICA	**27736**	**29598**	**19138**	**17950**	**22392**	**23279**	**22301**	**21792**	**22767**	**22643**
Canada	24132	26105	17137	15610	19349	20211	19527	18687	19596=	19403=
United States	3604	3493	2001	2340	3043	3068	2774	3105	3171	3240
EUROPE	**18490**	**15548**	**12135**	**13142**	**14996**	**15143**	**14089**	**13914**	**14917**	**14508**
EEC	*3702*	*2718*	*2915*	*2428*	*2555*	*2560*	*2291*	*2297*	*2520*	*2030*
Belgium-Luxembourg	16	5	-	-	-	5	-	1	2	3
Denmark	4	4	6	5	3	3	2	1	1	-
France	2682	1977	1809	1560	1473	1435	1292	1159	1154	1073
Germany,Federal Republic of	1	2	2	2	1	1	1	1	4	1
Netherlands	163	144	89	8	13	32	28	60	127	72
Spain	835	574	1009	853	1065	1080	968	1075	1232	881
United Kingdom	1	12	-	-	-	4	-	-	-	-
EFTA	*14788*	*12830*	*9220*	*10714*	*12441*	*12583*	*11798*	*11617*	*12397*	*12478*
Finland	9	14	-	-	-	-	-	-	-	-
Norway	1760	1836	1408	1914	1696	1418	1294	1392	967	1093
Sweden	13019	10980	7810	8800	10745	11165	10504	10225	11430	11385
SOUTH AFRICA	**10733E**	**9316**	**7605**	**4914**	**7497**	**6426**	**5607**	**5544**	**7247**	**9176**
OCEANIA	**52980**	**48019**	**51301**	**48652**	**55061**	**54545**	**51237**	**51566**	**60849**	**63578**
Australia	51210	46466	50037	47298	53851	53390	50027=	50583	60115	62876
New Zealand	1770	1553	1264	1354	1210	1155	1210	983	734	702
DEVELOPING COUNTRIES AND TERRITORIES	**102237**	**101348**	**89421**	**83909**	**103257**	**107490**	**108251**	**110303**	**119961**	**124848**
AFRICA	**18266**	**20416**	**16704**	**16336**	**18205**	**16896**	**15527**	**14909**	**15734**	**16489**
Algeria	699	739	710	699	487	4	23	6	-	10=
Liberia	11695	13865	10924	10522	11303	10787	9700	9052	9231	9239
Mauritania	5673	5746	5070	4812	6175	6045	5804	5851	6303	7240
Morocco	85	3	-	-	-	-	-	-	-	-
Other Africa	114E	63	-	303	240	60	-	-	-	-
AMERICA	**65862**	**67009**	**57582**	**54739**	**68604**	**72162**	**72100**	**76846**	**83555**	**89159**
Brazil	50469	51820	46536	44775	56685	59658=	59987	63237	68447	72547
Chile	5216	3835	3508	3196	3808	3264	3179=	3553	4254	4935
Peru	2832	3574	3090	2772	2700	3460	2817=	2920	3010	2589
Venezuela	7345	7780	4448	3996	5411	5780	6117=	7136	7844=	9088=
ASIA	**18109**	**13909**	**15125**	**12834**	**16448**	**18432**	**20624**	**18548**	**20672**	**19200**
India	15356	13890	15111	12834	16448	18432	20624	18548	20672	19200
Indonesia	5	1	6	-	-	-	-	-	-	-
Malaysia	6	18	8	-	-	-	-	-	-	-
Philippines	2742	-	-	-	-	-	-	-	-	-
EUROPE	-	**14**	**10**	-	-	-	-	-	-	-
Yugoslavia	-	14	10	-	-	-	-	-	-	-
COUNTRIES OF EASTERN EUROPE	**25343**	**23640**	**22953**	**22795**	**24339**	**23256**	**24882**	**24079**	**25838**	**23928**
USSR	24843	23390	22703	22687	24339	23256	24882	24079	25838=	23928=

Table 8

IRON ORE : Network of exports by major region of destination, 1989

(million tons, natural weight)

Exports to / Exports from	World	Developed Market-Economy Countries					Developing Countries	Eastern Europe	Socialist Asia
		Total	USA	Japan	EEC	Others			
WORLD	**414.6**	**303.2**	**20.3**	**124.1**	**131.9**	**26.9**	**51.7**	**49.9**	**9.8**
DEVELOPED MARKET-ECONOMY COUNTRIES	**175.5**	**146.5**	**9.9**	**62.2**	**53.6**	**21.4**	**19.4**	**2.3**	**7.3**
Australia	99.3	76.9	0.1	52.8	10.3	13.7	13.5	1.6	7.3
Canada	30.2	29.4	9.6	2.5	17.0	0.3	0.8	0.0	-
EEC	5.2	5.2	-	-	5.2	-	-	-	-
Sweden	17.5	15.1	0.1	0.8	11.7	2.5	1.8	0.6	-
Others	23.3	19.9	0.1	6.1	8.8	4.9	3.3	0.1	-
DEVELOPING COUNTRIES AND TERRITORIES	**199.2**	**154.4**	**10.4**	**61.9**	**78.9**	**3.5**	**31.3**	**10.7**	**2.5**
Brazil	111.6	82.9	5.1	30.2	46.3	1.3	22.0	4.5	2.2
Chile	7.4	6.8	0.1	4.6	1.9	0.2	0.6	-	-
India	32.0	22.7	-	20.3	2.0	0.4	4.8	4.2	0.3
Liberia	13.8	13.1	0.2	0.2	11.7	1.0	0.2	0.5	-
Mauritania	11.1	11.0	0.7	0.3	10.0	-	0.1	-	-
Peru	4.0	1.1	0.2	0.9	-	-	2.9	-	-
Venezuela	14.4	12.1	4.1	0.8	7.0	0.6	0.4	1.5	-
Others	4.9	-	-	4.6	-	-	0.3	-	-
SOCIALIST COUNTRIES OF EASTERN EUROPE	**39.9**	**2.0**	**-**	**-**	**-**	**2.0**	**1.0**	**36.9**	**-**

Note: On the basic of information available to the secretariat as of 1 july 1990.

Table 9

PELLETS : Exports

(000 tons)

Country	1986	1987	1988	1989
Australia	1,706	2,111	2,011	1,624
Brazil	22,254	19,962	23,765	23,335
Canada	17,488	13,078	17,569	17,325
Chile	3,013	3,284	3,549	3,587
Hungary	..	..	..	780
India *	154	825	1,640	1,923
Liberia	3,188	3,227	3,201	3,320
Norway	..	..	1,060	1,052
Peru	1,499	1,752	1,515	1,503
Sweden	6,259	6,143	6,535	6,494
USA	4,551	5,049	5,232	2,874
USSR	10,927	10,866	10,892	10,733
Venezuela	22	434	849	1,159
TOTAL	**71,061**	**66,731**	**77,818**	**75,709**

Note: * Fiscal Year (April to March)

Table 10

IRON ORE: Imports

(000 tons, natural weight)

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
WORLD	**388744**	**370850**	**336866**	**315758**	**368144**	**373055**	**361808**	**363877**	**392606**	**412585**
DEVELOPED MARKET ECONOMY COUNTRIES	**299547**	**286707**	**255262**	**232966**	**277108**	**280268**	**262928**	**261008**	**288037**	**301550**
AMERICA	**31334**	**34579**	**18271**	**17553**	**22383**	**21824**	**22384**	**22080**	**24917**	**24825**
Canada	5875	5792	3357	4013	4947	5800	5367	5213	4791#	5348#
United States	25459	28787	14914	13540	17436	16024	17017	16867	20126	19477
EUROPE	**134445**	**128719**	**115092**	**106209**	**129302**	**133907**	**125251**	**126852**	**139274**	**147144**
EEC	*129229*	*123723*	*110288*	*102254*	*123451*	*128139*	*119938*	*121163*	*132356*	*140075*
Belgium-Luxembourg	22182	21148	18613	17520	19628	18997	18056	18385	20795#	19787#
Denmark	3	127	183	63	1	2	3	8	3#	6#
France	18643	16511	14943	12553	16088	16220	16191	15056	18727#	19955#
Germany,Federal Republic of	49834	44288	38909	35499	42500	43007	41632	39583	45169#	47170#
Greece	288	-	-	-	-	-	2	-	-	-
Italy	16913	15196	16066	13798	19240	18295	17601	16323	16200#	18201#
Netherlands	7586	6660	6160	4979	7238	8507	7066	7049	7562	8153
Portugal	494	524	263	471	375	683	543#	764	477#	689#
Spain	4757	4687	4579	4202	4221	5023	4286	5767	5556#	6935#
United Kingdom	8529	14582	10372	13169	14160	15405	14558	18028	17867#	19179#
EFTA	*5216*	*4996*	*4804*	*3955*	*5851*	*5768*	*5312*	*5689*	*6918*	*7069*
Austria	3336	3423	3241	2391	3890	3683	3204#	3311	4164	4192#
Finland	1737	1495	1493	1299	1856	1756	1987#	2261	2400#	2600#
Iceland	6	16	12	13	16	23	25	17	20E	..
Norway	87	11	47	225	40	230	18	21	193#	23#
Sweden	1	1	5	19	39	68	67#	70#	129	234#
Switzerland	49	50	6	8	10	6	11	9	12	-
ASIA	**133721**	**123362**	**121808**	**109152**	**125371**	**124513**	**115234**	**112034**	**123377**	**127709**
Japan	133721	123362	121808	109152	125371	124513	115234	112034	123377#	127709#
OCEANIA	**47**	**47**	**91**	**52**	**52**	**24**	**59**	**42**	**469**	**1872**
Australia	47#	47#	91#	52#	52#	24#	59#	42#	469#	1872#
DEVELOPING COUNTRIES AND TERRITORIES	**23394**	**23879**	**25254**	**25475**	**28117**	**30004**	**33165**	**36978**	**41046**	**51727**
AFRICA	**11**	**12**	**32**	**11**	**16**	**13**	**71**	**63**	**198**	**150**
Algeria	- E	- E	-	-	16	-	-	-	-	-
Nigeria	-	-	-	-	-	-	-	-	152#	100E
Tunisia	11	12	32	11	-	13	71	63	46	50E
AMERICA	**2491E**	**3005**	**2107**	**1904**	**2213**	**2455**	**3283**	**3387**	**3590**	**4476**
Argentina	2391	2558	2106	1904	2213	2455	3183	3342	3131#	3816#
Mexico	100E	447	1	-	-	-	100#	45	459#	660#
ASIA	**19252**	**19502**	**21638**	**21992**	**24322**	**25356**	**28464**	**32447**	**35772**	**44796**
Indonesia	285	700	121	128	198	132	170	210	400E	2000
Malaysia	69	25	33	28	414	831	1026	819	432#	912#
Pakistan	34	313	524	914	922	1243	1469	800	1000E	1100E
Philippines	4651	3800E	3300E	3200E	3600E	3300E	3700E	4000E	4400E	4200E
Qatar	720	686	715	580	752	840E	800E	700E	800E	900E
Republic of Korea	9130	10688	11464	10121	10287	11167	11941	16607	16479	22790#
Saudi Arabia	49	43	96	288	965	1044	1385	1478	1245	1300E
Singapore	10	31	25	13	7	13	7	1	10E	1
Taiwan (province of China)	2873	2413	4106	5004	5228	4939	5358	6140	8477	9200
Turkey	1231#	728#	1064#	1546#	1849#	1747#	2428#	1532#	2369#	2243#
United Arab Emirates	200	75	190	170	100E	100E	180	160	140E	150E
EUROPE	**1640**	**1360**	**1477**	**1568**	**1566**	**2180**	**1347**	**1081**	**1486**	**2305**
Yugoslavia	1640	1360	1477	1568	1566	2180	1347	1081	1486#	2305#
COUNTRIES OF EASTERN EUROPE	**58260**	**56858**	**52414**	**52820**	**56749**	**52369**	**53170**	**53193**	**49923**	**46015**
Bulgaria	2225	2280	2360	2313	2286	2215	2248	2308	2112	1920
Czech and Slovak Federal Republic	12819	15682	15290	15305	15024	11268	11264	10366	10058#	9765#
German Democratic Republic	3796	4245	3116	2971	3179	4324	4100E	4300E	4200E	4000E
Hungary	3286	3765	3757	3967	4170	2382	3414	3403	2883#	3263#
Poland	20150	15870	13493	13787	17127	16973	16644#	17116	16668#	13441#
Romania	15984	15016	14398	14477	14963	15207	15500	15700E	14000E	13626#
SOCIALIST COUNTRIES OF ASIA	**7543**	**3406**	**3936**	**4497**	**6170**	**10414**	**12546**	**12698**	**13600**	**13293**
China	7254	3336	3451	4385	5970	10114	12046	12098	12900E	12593#
Democratic Peoples Republic of Korea	289E	70E	485E	112E	200E	300E	500E	600E	700E	700E

Table 11

EEC : Iron Ore Imports by origin/destination, 1989

(thousand tons, natural weight)

Origin \ Destination	Federal Republic of Germany	France	Italy	Netherlnds	Belgium Luxembrg	United Kingdom	Denmark	Spain	Portugal
Non agglomerated ores									
Total of which:	31,045	19,954	14,328	8,151	19,393	15,421	6	4,472	390
EC	500 E	319	279	769	3,385	632	-	0	33
Norway	61	339	-	1,212	95	115	-	-	-
Sweden	1,057	625	-	302	2,874	326	6	-	-
Mauritania	1	2,853	2,418	10	2,555	679	-	869	216
Liberia	3,200	999	1,743	10	994	-	-	838	-
Canada	4,250	2,294	571	812	761	2,316	-	207	140
Venezuela	722	1,069	1,286	461	1,527	1,166	-	605	-
Brazil	13,704	5,589	2,868	2,379	5,514	3,165	-	1,083	-
Australia	6,742	4,039	1,950	1,366	1,416	4,708	-	870	-
Agglomerated ores									
Total of which:	16,125	1	3,873	2	394	3,759	0	2,463	299
EC	-	-	-	2	9	-	-	-	-
Norway	529	-	-	-	277	765	-	-	-
Sweden	3,854	-	-	-	-	21	-	-	-
Mauritania	-	-	114	-	-	-	-	-	-
Liberia	2,020	-	861	-	-	-	-	-	-
Canada	1,852	-	530	-	-	2,836	-	541	299
Venezuela	-	-	-	-	-	-	-	-	-
Brazil	6,297	1	2,368	-	106	-	-	1,923	-
Australia	-	-	-	-	-	137	-	-	-
Total (including others)	47,170	19,955	18,201	8,153	19,787	19,180	6	6,935	689

1) Without Greece 2) Ireland no imports

Table 12

JAPAN : Iron Ore Imports by origin/destination, 1989

(thousand tons, natural weight)

Origin	Non Agglomerated	Agglomerated	Total
Australia	54,594	1,681	56,275
Brazil	25,838	3,682	29,520
Canada	2,147	-	2,147
Chile	2,864	1,788	4,652
India	21,061	158	21,220
Korea Republic of	147	-	247
Mauritania	437	-	437
New Zealand	1,387	-	1,387
Peru	586	375	961
Philippines	-	4,507	4,507
Liberia	238	-	238
South Africa	4,812	40	4,853
Sweden	688	81	769
Venezuela	541	-	541
Others	39	16	55
Total	115,380	12,329	127,709

Table 13

EASTERN EUROPE : Iron Ore Imports by origin/destination, 1989

(thousand tons, natural weight)

Destination / Origin	Poland	Romania	Czech and Slovak F.R.	Germany Dem.Rep.	Hungary	Bulgaria
USSR	11,873	6,544 E	8,127	2,000 E	2,589	1,920
Brazil	1,063	1,550	1,086	688	-	-
Norway	28	-	91	-	-	-
Sweden	-	-	292	520	-	-
India	-	2,760	184	759	610	-
Venezuela	477	1,010	278	-	-	-
Others	-	1,164	-	30	64	-
Total	13,441	13,626	9,765	4,000 E	3,263	1,920

Table 14

IRON ORE: Value of Exports

(million dollars)

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
WORLD	**7360.7**	**7739.3**	**7033.0#**	**6536.6**	**7015.2**	**7042.7**	**6909.2**	**6905.2**	**7496.1**	**8220.1**
DEVELOPED MARKET ECONOMY COUNTRIES	**3423.9**	**3584.8**	**3045.8**	**2927.3**	**3141.8**	**3120.4**	**2860.0**	**2698.7**	**3034.7**	**3345.9**
AMERICA	**1291.9**	**1468.2**	**985.7**	**956.0**	**1098.0**	**1097.3**	**1001.9**	**928.9**	**1010.7**	**992.0**
Canada	1061.3	1223.5	835.2	773.3	858.7	857.1	797.1	730.6	816.9#	799.3#
United States	230.6	244.7	150.5	182.7	239.3	240.2	204.8	198.3	193.8	192.7
EUROPE	**553.9**	**493.5**	**362.9**	**366.8**	**433.1**	**458.0**	**404.0**	**441.1**	**474.8**	**512.0**
EEC	*95.8*	*68.4*	*59.1*	*43.0*	*39.8*	*44.7*	*44.7*	*52.7*	*58.9*	*50.5*
Belgium-Luxembourg	1.9	0.2	0.1	-	-	0.6	0.1	0.2	0.7#	0.8#
Denmark	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	-	-
France	66.3	42.7	34.9	26.3	21.7	21.8	26.2	28.7	29.6#	27.1#
Germany,Federal Republic of	0.6	0.5	0.4	0.5	0.4	0.3	0.5	0.7	1.1#	0.8#
Italy	0.1	-	0.1	0.1	0.1	-	0.1	-	-	0.2#
Netherlands	8.9	7.3	5.6	1.5	1.3	2.5	1.2	3.3	7.7#	6.1
Spain	17.8	17.5	17.7	14.3	16.2	19.3	16.3	17.5	19.5#	15.3#
United Kingdom	-	-	-	0.1	-	0.1	0.2	0.2	0.3#	0.2#
EFTA	*458.1*	*425.1*	*303.8*	*323.8*	*393.3*	*413.3*	*359.3*	*388.4*	*415.9*	*461.5*
Austria	-	-	-	-	0.1	-	0.3	-	-	-
Finland	0.1	1.6	-	-	-	-	-	-	-	-
Norway	78.8	98.8	58.2	69.6	66.4	54.5	55.3	53.4	42.5#	50.0#
Sweden	379.2	324.7	245.6	254.2	326.8	358.5	303.7#	335.0	373.4	411.5#
SOUTH AFRICA	**244.0**	**248.6**	**217.0**	**158.8**	**168.1**	**145.7**	**132.1**	**131.8**	**146.1#**	**209.2#**
OCEANIA	**1334.1**	**1374.5**	**1480.2**	**1445.7**	**1442.6**	**1419.4**	**1322.0**	**1196.9**	**1403.1**	**1632.7**
Australia	1305.8	1348.2#	1456.9#	1420.0#	1421.0#	1400.0#	1300.9#	1181.6#	1390.8#	1620.0#
New Zealand	28.3	26.3	23.3	25.7	21.6	19.4	21.1	15.3	12.3#	12.7#
DEVELOPING COUNTRIES AND TERRITORIES	**3042.9**	**3243.4**	**3054.1#**	**2643.4**	**2913.1**	**3021.1**	**2927.2**	**2991.1**	**3318.1**	**3826.6**
AFRICA	**480.2**	**511.8**	**479.2**	**403.1**	**438.3**	**429.3**	**384.6**	**352.1**	**365.0**	**473.1**
Algeria	16.7E	17.9	23.6	16.0	10.7	0.1E	0.5	0.2E	-	0.3#
Liberia	310.3	325.4	311.1	267.3	282.2	279.4	241.0	217.9	220.0E	286.0E
Mauritania	151.2#	167.2#	144.5#	114.0#	141.1#	148.7#	143.0#	134.0#	143.5#	185.1#
Morocco	-	0.1	-	-	-	-	-	-	1.3#	1.5E
Tunisia	-	-	-	-	-	-	0.1	-	0.2#	0.2E
Other Africa	2.0	1.2	-	5.8	4.3	1.1	-	-	-	-
AMERICA	**2080.6**	**2238.9**	**2021.5**	**1774.9**	**1971.2**	**2031.3**	**2017.6**	**2052.0**	**2286.1**	**2647.5**
Bolivia	..	..	..	..	..	..	..	..	0.2	0.3
Brazil	1563.8	1650.5E	1590.9E	1426.5E	1605.3	1658.0	1624.0	1615.4#	1900.4#	2176.0#
Chile	158.0	162.0	158.0	112.0	111.0	91.0	92.3#	95.7#	105.4	141.0E
Peru	79.7	92.0	85.8	74.8	57.9	72.8	74.3#	70.9	61.0#	60.2E
Venezuela	279.1	334.4	186.8E	161.6E	197.0E	209.5E	227.0E	270.0	219.1#	270.0E
ASIA	**482.1**	**491.5**	**552.6**	**465.4**	**503.6**	**560.5**	**525.0**	**587.0**	**667.0**	**705.0**
India	362.8	384.8	450.0	371.9	409.6	477.5	435.0#	490.0E	560.0E	592.0E
Indonesia	0.1	-	0.1	-	-	-	-	-	-	-
Malaysia	0.4	0.7	0.5	0.5	-	-	-	-	-	-
Philippines	118.8	106.0E	102.0E	93.0E	94.0E	83.0E	90.0E	97.0E	107.0E	113.0E
EUROPE	-	**1.2**	**0.8**	-	-	-	-	-	-	**1.0**
Yugoslavia	-	1.2	0.8#	-	-	-	-	-	-	1.0#
COUNTRIES OF EASTERN EUROPE	**893.9**	**911.1**	**933.1**	**965.9**	**960.3**	**901.2**	**1122.0**	**1215.4**	**1143.3**	**1047.6**
USSR	877.0	901.6	923.8	960.9	960.3	901.2	1122.0	1215.4	1143.3	1047.6

Table 15

IRON ORE: Value of Imports

(million dollars)

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
WORLD	**9958.9**	**9969.9**	**9107.6**	**8263.3**	**8788.6**	**8973.7**	**8762.3**	**8379.3**	**8986.5**	**10532.4**
DEVELOPED MARKET ECONOMY COUNTRIES	**8097.5**	**8090.7**	**7299.1**	**6463.5E**	**6883.8E**	**6918.1**	**6619.1**	**6297.0**	**6815.4**	**7768.7**
AMERICA	**1148.1**	**1367.3**	**744.0**	**717.3E**	**854.1E**	**809.2**	**760.9**	**672.6**	**753.9**	**804.4**
Canada	230.8	246.0	156.0	189.3	226.1	255.6	212.0	194.6	185.1#	197.9#
United States	917.3	1121.3	588.0	528.0E	628.0E	553.6	548.9	478.0	568.8	606.5
EUROPE	**3499.4**	**3218.4**	**2923.3**	**2599.3**	**2829.1**	**3063.5**	**3098.1**	**3005.9**	**3203.6**	**3787.0**
EEC	*3317.2*	*3049.8*	*2766.8*	*2485.6*	*2664.4*	*2908.3*	*2949.4*	*2841.2*	*3001.9*	*3521.7*
Belgium-Luxembourg	404.5	395.0	318.6	278.5	307.7	336.5	335.2	341.1	390.5#	404.2#
Denmark	0.7	5.4	8.3	2.8	0.3	0.4	0.8	0.9	- #	1.1
France	467.7	420.2	381.8	311.7	338.9	359.5	347.7	300.2	377.5#	473.6#
Germany,Federal Republic of	1396.3	1124.8	1051.9	965.9	1029.2	1122.9	1266.7	1121.0	1172.6#	1328.2#
Greece	9.9	-	-	-	-	0.1	0.3	-	- #	-
Italy	408.6	387.5	418.4	349.4	432.0	407.9	389.3	354.4	289.9#	455.9#
Netherlands	180.1	161.6	144.0	100.4	137.0	166.7	154.2	146.8	146.0	144.0
Portugal	14.8	16.3	6.6	12.1	9.5	17.5	12.8	18.6	13.0#	18.7#
Spain	157.1	130.7	140.9	111.3	106.9	125.2	100.7	125.5	138.9#	193.8#
United Kingdom	277.5	388.3	296.3	353.5	302.9	371.8	341.7	432.7	473.5#	502.2#
EFTA	*182.2*	*168.6*	*156.5*	*113.7*	*164.7*	*155.0*	*148.7*	*164.7*	*201.7*	*265.3*
Austria	125.8	123.6	112.8	75.5	121.8	111.3	99.2	110.6	144.3	151.0E
Finland	51.7	42.0	41.1	32.3	39.4	36.5	44.7#	49.5	45.4#	95.0#
Iceland	0.2	0.6	0.6	0.6	0.6	0.9	1.0	0.7	0.8E	0.9E
Norway	2.3	0.5	1.6	4.3	1.3	3.7	0.7	0.8	5.3#	9.3#
Sweden	0.1	0.1	0.2	0.8	1.4	2.5	2.9#	2.9	5.7	9.1
Switzerland	2.1	1.8	0.2	0.2	0.2	0.1	0.2	0.2	0.2	-
ASIA	**3448.7**	**3503.7**	**3629.4**	**3145.4**	**3199.1**	**3044.9**	**2759.3**	**2618.4**	**2852.7**	**3137.3**
Japan	3448.7	3503.7	3629.4	3145.4	3199.1	3044.9	2759.3	2618.4	2852.7	3137.3
OCEANIA	**1.3**	**1.3**	**2.4**	**1.5**	**1.5**	**0.5**	**0.8**	**0.1**	**5.2**	**40.0**
Australia	1.3	1.3	2.4#	1.5#	1.5	0.5	0.8#	0.1#	5.2#	40.0#
DEVELOPING COUNTRIES AND TERRITORIES	**607.0**	**672.6**	**718.0**	**726.5**	**802.4**	**869.2**	**878.4**	**923.0**	**1044.4**	**1442.2**
AFRICA	**0.5**	**1.1**	**1.2**	**0.3**	**0.2**	**0.7**	**1.9**	**1.3**	**1.4**	**1.6**
Algeria	- E	- E	-	-	0.2	-	-	-	-	-
Tunisia	0.5	1.1	1.2	0.3	-	0.7	1.9	1.3	1.4	1.6E
AMERICA	**94.0E**	**109.8**	**76.3**	**61.0**	**68.1**	**75.5**	**98.6**	**101.4**	**127.6**	**158.5**
Argentina	87.8	94.1	76.2	61.0	68.1	75.5	95.1	99.7	102.4#	137.0#
Mexico	6.2E	15.7	0.1	-	-	-	3.5#	1.7	25.2#	21.5#
ASIA	**445.4**	**515.3**	**591.2**	**621.7**	**694.3**	**734.2**	**744.8**	**783.5**	**855.8**	**1191.1**
Indonesia	11.9	34.4	6.1	9.7	9.4	5.1	6.8E	7.3E	14.0E	78.0E
Malaysia	2.4	1.1	1.2	0.8	11.9	26.9	30.5	20.0E	15.4#	38.1#
Pakistan	1.2	13.6	17.6	33.4	31.2	35.9	38.8	29.2	34.0E	35.0E
Philippines	105.8	100.0E	95.0E	93.0E	90.0E	86.0E	92.5E	96.0E	102.0E	105.0E
Qatar	30.0	29.5E	31.7E	24.4E	29.7E	33.7E	31.3E	28.0E	30.0E	34.0E
Republic of Korea	169.2	227.8	277.8	253.9	282.7	318.9	293.8	363.0	345.3	549.9#
Saudi Arabia	1.9	1.7	5.1	14.7E	48.3E	53.2E	49.9	49.4	49.7	53.0E
Singapore	0.4	0.7	0.9	0.4	0.2	0.3	0.2	0.2	0.2E	0.2
Taiwan (province of China)	67.0	67.9	119.6	139.3	130.0	118.3	126.3	146.3	187.7	230.0E
Turkey	46.0#	35.3#	33.2#	47.1#	58.9#	53.9#	72.8#	42.1#	75.3#	64.9#
United Arab Emirates	9.6	3.3	3.0	3.0E	2.0E	2.0E	1.9E	2.0E	2.0E	3.0E
EUROPE	**67.1#**	**46.4#**	**49.3#**	**43.5**	**39.8**	**58.8**	**33.1**	**36.8**	**59.6**	**91.0**
Yugoslavia	67.1#	46.4#	49.3#	43.5	39.8	58.8	33.1	36.8#	59.6#	91.0#
COUNTRIES OF EASTERN EUROPE	**1102.2**	**1096.6**	**965.6**	**954.5**	**942.8**	**922.9**	**921.8**	**877.8**	**852.7**	**977.6**
Bulgaria	42.3E	41.0E	44.6E	41.2E	38.2E	35.5E	35.0E	51.7E	51.3E	50.5E
Czech and Slovak Federal Republic	243.6E	368.2	363.0	375.8	360.4	344.4	358.4	290.0	272.0E	270.0E
German Democratic Republic	75.5E	76.4E	58.8E	52.3E	52.0E	68.0E	66.0E	69.0E	62.0E	79.0E
Hungary	60.1	58.4	50.7	42.4	41.7E	40.3	46.6	51.2	47.0E	58.1#
Poland	385.7	292.3	184.7	189.5	203.1	192.7	167.8	163.9	157.4	236.0E
Romania	295.0E	260.3E	261.8E	253.3E	247.4E	242.0E	248.0E	252.0E	263.0E	284.0E
SOCIALIST COUNTRIES OF ASIA	**152.2**	**110.0**	**124.9**	**118.8**	**159.6**	**263.5**	**343.0**	**281.5**	**274.0**	**343.9**
China	144.7E	108.2	110.7	116.3	136.5	258.8	335.4	269.5	260.0	329.9#
Democratic Peoples Republic of Korea	7.5E	1.8E	14.2E	2.5E	3.1E	4.7E	7.6E	12.0E	14.0E	14.0E

Table 16

IRON ORE: Apparent Consumption

(000 tons, natural weight)

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
WORLD	**930426**	**890244**	**828255**	**779611**	**869007**	**904298**	**907763**	**925143**	**947028**	**975902**
DEVELOPED MARKET ECONOMY COUNTRIES	**456323**	**432834**	**358000**	**307048**	**374796**	**382503**	**357637**	**365610**	**381029**	**403318**
AMERICA	**113095**	**114950**	**60514**	**60820**	**78628**	**73914**	**62967**	**71407**	**87033**	**87553**
Canada	15636	16341	11748	12561	14165	13474	11051	12071	14677#	15526#
United States	97459	98609	48766	48259	64463	60440	51916	59336	72356	72027
EURCPE	**179649**	**165259**	**146363**	**130748**	**154139**	**158048**	**148423**	**144853**	**154125**	**163061**
EEC	*161808*	*150114*	*132707*	*122458*	*142527*	*145321*	*134888*	*131912*	*140546#*	*148910#*
Belgium-Luxembourg	22727	21621	18653	17560	19628	18982	18055	18382	20788#	19776#
Denmark	-6	118	168	51	-6	-5	-2	5	-1#	4#
France	39190	31622	28776	23702	26366	26072	24582	22882	24874#	25812#
Germany,Federal Republic of	51776	45856	40211	36471	43477	46034	42344	39824	45219#	47265#
Greece	1788	1280	500	1300	1452	1712	1302	-	- #	- #
Italy	17129	15316	16075	13797	19240	18294	17601	16523	16200#	18201#
Netherlands	7312	6420	6011	4965	7216	8452	7017	6944	7339	8026
Portugal	549	564	303	501	405	753	593	794	502	704
Spain	11896	12023	10971	10563	10209	9358	8549	8268	7536#	9913#
United Kingdom	9447	15294	11039	13548	14540	15669	14846	18290	18089#	19209#
EFTA	*17841*	*15145*	*13656*	*8290*	*11612*	*12727*	*13535*	*12941*	*13579*	*14151*
Austria	6536	6471	6571	5931	7489	6985	6316	6360	6464	6602
Finland	2502	2336	2373	2159	2756	2556	2630	2909	2957	2600
Iceland	6	16	12	13	16	23	25	17	20E	..
Norway	1245	597	1151	820	797	1122	1146	631	1080#	394#
Sweden	7503	5675	3546	-641	544	2035	3407#	3015	3046#	4553#
SOUTH AFRICA	**13172**	**14605**	**13198**	**8794**	**12626**	**14713**	**15633**	**13206**	**13744**	**15392**
ASIA	**134199**	**123803**	**122170**	**109450**	**125695**	**124851**	**115525#**	**112329**	**123655**	**127960**
Japan	134199	123803	122170	109450	125695	124851	115525#	112329	123655	127960
OCEANIA	**16208**	**14217**	**15755**	**-2764**	**3708**	**10977**	**15089**	**23815**	**2472**	**9352**
Australia	15827#	13561#	15074#	-2502#	3618#	10557#	14396#	23196#	1584#	8352#
New Zealand	381	656	681	-262	90	420	693	619	888#	1000E
DEVELOPING COUNTRIES AND TERRITORIES	**83621**	**80606**	**92777**	**89013**	**94196**	**110720**	**125569**	**130213**	**129154**	**137892**
AFRICA	**6659**	**3314**	**8267**	**4738**	**4829**	**7016**	**9301**	**8365**	**6311**	**8627**
Algeria	2054	2002	2472	2286	2706	3373	3312	3562	3400	2728#
Egypt	1500	1400	2200	2060	1889	2120	1999	2112	2400	2400
Liberia	1051	-1154	1696	-294	-770	20	1660	296	-971	653
Mauritania	214#	-387#	457	-785#	-526#	-130#	333	118	-223#	976#
Morocco	60	45	230	300	200	140	200	204	37#	44#
Nigeria	-	-	-	-	-	-	-	-	152#	100E
Tunisia	396	412	302	311	310	323	378	353	267	255E
Zimbabwe	1560	1096	900	1000	1000	1200	1419	1720	1249	1471
Other Africa	-176E	-100	10	-140	20	-30	-	-	-	-
AMERICA	**36365**	**32621**	**37823**	**37618**	**41955**	**54854**	**57358**	**56430**	**60205**	**59608**
Argentina	3291	3368	2706	2904	2913	3355	3893	4142	4293#	4493#
Bolivia	-	-	-	-	-	-	-	-	-	-11#
Brazil	18383	16916	20388	22139	23529#	36419#	36766#	36817#	40697#	42102#
Chile	1728	2010	160	470	-10	1040	1480#	802#	898#	690#
Colombia	506#	433#	470#	456#	441#	455#	523#	615	615#	600
Mexico	6600	6047	7661	8420	10543	8103	7681	7419	8289	8198#
Peru	1478	721	1319	25	-60	-250	835#	1137	-310#	-79
Venezuela	4379	3126	5119	3204	4599	5732	6180#	5498	6013#	3615#
ASIA	**34453**	**38547**	**40126**	**40071**	**40531**	**41192**	**50945**	**58354**	**55519**	**62922**
Hong Kong	30E	30E	30E	30E	-	-	-	-	-	-
India	15232	18719	17625	16884	15064	13745	20686#	24128	18090E	18000E
Indonesia	276	698	110	128	198	132	170	210	400	2000
Iran (Islamic Republic of)	500	..	..	..	..	..	..	..	..	..
Malaysia	439	522	408	128	574	1013	1234	980	659#	1103#
Myanmar(Union of)	3E	3E	3E	3E	3E	-	-	-	-	-
Pakistan	34	313	524	914	922	1243	1469	800	1000E	1100E
Philippines	389	-	100E	100E	-	-	20	-202	-364	-400
Qatar	720	686	715	580	752	840E	800E	700E	800E	900E
Republic of Korea	9675	11243	12017	10712	10841	11709	12466	17117	17151	23134
Saudi Arabia	49	43	96	288	965	1044	1385	1478	1245	1300E
Singapore	10	31	25	13	7	13	7	1	10E	1

Table 16

IRON ORE: Apparent Consumption

(000 tons, natural weight)

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Taiwan (province of China)	2873	2413	4106	5004	5228	4939	5358	6140	8477	9200
Thailand	85	60	30	70	70	94	37	97	99	100
Turkey	3938#	3711#	4147#	5047#	5807#	6320#	7133#	6745#	7812#	6334#
United Arab Emirates	200	75	190	170	100E	100E	180	160	140E	150E
EUROPE	**6144**	**6124**	**6561**	**6586**	**6881**	**7658**	**7965**	**7064**	**7029**	**6735**
Yugoslavia	6144	6124	6561	6586	6881	7658	7965	7064	7029	6735#
COUNTRIES OF EASTERN EUROPE	**261599**	**260978**	**259352**	**260773**	**264015**	**262421**	**263381**	**264602**	**260465**	**252535**
Bulgaria	4111	4034	3912	4116	4349	4200	4427	4165	3938	3533
Czech and Slovak Federal Republic	14746	17617	17151	17208	16893	13092	13048	12164	11831	11545#
German Democratic Republic	3847	4286	3157	3011	3215	4324	4100	4300	4200	4000
Hungary	3484	3961	3971	4182	4363	2566	3414	3403	2885	3263
Poland	20254	15975	13542	13797	17138	16985	16653	17122	16674	13448
Romania	18317	17320	16544	16464	16879	17494	17931	17981	16000#	15626#
USSR	197840	198285	201575	202195	201178	203760	203808#	205467#	204937#	201120#
SOCIALIST COUNTRIES OF ASIA	**128883**	**115826**	**118126**	**122777**	**136000**	**148654**	**161176**	**164718**	**176380**	**181793**
China	120394	107756	109641	114665	127800	140354	152676	156118	167680	172593
Democratic Peoples Republic of Korea	8489	8070	8485	8112	8200	8300	8500	8600	8700	9200E

Table 17

IRON ORE : Reported Consumption

(000 tons, natural weight)

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Algeria	..	..	..	..	..	..	2629#	..	..	2776#
Argentina	..	..	..	..	..	..	..	..	3753#	4675#
Australia	10336	11401	10299	7857	9445	8088	10000#	..	..	10010#
Austria	5697	5654	5161	5547	6309	6300	6385#	5665	5850	..
Brazil	19836	16820	16706	19106	26322	27558	28698	32043#	..	..
Canada	16574#	15208#	11999#	13103#	14620#	15009#	14185#	14929#	14871#	15451#
Chile	..	..	..	..	..	..	..	..	..	1095
Colombia	..	..	..	..	..	..	..	..	615#	..
E.E.C.	**160854**	**154626**	**131971**	**128428**	**138668**	**144205**	**132627**	**131840**	**152002**	..
Belgium-lux.	24366	21102	18509	18503	20539	19776	18372	18198	19765#	19288#
France	37875	32387	28506	25620	26462	26606	24311	22701	24816#	25440#
Germany, Fed.Rep	50072	46737	38377	37817	42719	45204	41477	40550	50295#	50434#
Italy	18409	18449	17496	15835	17520	19352	18225	17090	19384#	..
Netherlands	6521	6799	5381	5563	7284	7433	7047	7181	7979#	8228#
Portugal	598	508	386	576	478	616	636	639	729#	621#
Spain	13688	13807	12005	11299	10159	10042	8175	7795	7860#	9186#
United Kingdom	9326	14116	11311	13215	13507	15176	14384	17682	21174#	20474#
Finland	3209	3113	3092	3010	3201	2964	3084#	3169	3370#	3540#
Japan	120928	111634	107390	101198	111598	111701	103046	101238	129369#	131573#
Korea Rep. of	..	..	..	..	..	..	..	..	..	23000#
Malaysia	..	..	..	..	..	..	..	..	201#	154#
Mexico	..	..	..	..	..	5163	7563#	..	13529#	16385#
Morocco	..	..	..	..	..	..	..	..	17#	..
Norway	1169	1144	940	1116	1034	1133	..	722	673#	..
Peru	..	..	..	190	74	332	413#	337	..	..
Philippines	..	..	..	..	..	..	..	..	34#	..
Saudia Arabia	..	..	..	..	..	..	1750#	..	..	..
Sweden	3608	2787	2804	3116	3464	..	2206#	3500e	3749	4357#
Tunisia	..	..	..	..	..	..	..	..	350#	..
Turkey	..	..	2239	2620	4552	4436	3705	5736	7504#	6744#
U.S.A	100461	106035	64939	71759	73673	71730	64820	67767	83700	87200
Venezuela	..	..	..	4294	4324	4823	5453#	5498	5086	4595#
Yugoslavia	4588	5207	5158	5480	..	..	6202	11466	4498	6220#
Zimbabwe	..	..	..	..	..	..	1142#	..	1024#	993#
Czechoslovakia	18894	18807	18250	18046	18404	17919	17832	18035	17558	..
German D.Rep.	4061	4067	3542	3713	3891	3940	4416	4405	..	..
Hungary	4576	4487	4431	4083	4054	3817	3673	3563	2883#	3680#
Poland	21282	16801	15564	17307	17724	17218	18589#	18161	16245#	..

Table 18

IRON ORE : Reported consumption by product, 1989

(000 tons)

Country	Non-Agglomerated ores							Agglomerated		TOTAL
	Run of mine	Lumps	Fines	Concentrates	Pellet-feed	Others	Total	Pellets	Sinter	
Algeria	2776	-	-	-	-	-	2776	-	-	2776
Argentina	-	1479	657	-	-	-	2135	2540	-	4675
Australia	-	-	-	-	-	-	-	-	-	10010
Canada	-	-	-	-	-	-	-	-	-	15451
Chile	-	738	-	-	-	-	738	337	-	1095
EEC	-	-	-	-	-	-	**15468**	**27613**	**90590**	**133671**
Belgium	-	-	-	-	-	-	1987	879	11391	14257
France	-	-	-	-	-	-	3326	736	21378	25440
Germany, Federal Republic of	-	-	-	-	-	-	5818	15393	29223	50434
Italy	-	-	-	-	-	-	1808	4505	13071	19384
Luxembourg	-	-	-	-	-	-	306	-	4725	5031
Netherlands	-	-	-	-	-	-	260	4000	3968	8228
Portugal	-	-	-	-	-	-	9	217	395	621
Spain	-	-	-	-	-	-	535	2423	6228	9186
United Kingdom	-	-	-	-	-	-	3227	3965	13282	20474
Finland	-	-	-	-	-	-	-	480	3070	3540
Hungary	-	-	-	-	-	-	-	780	2900	3680
Japan	2630	4860	13660	760	-	-	21758	9706	100109	131573
Korea, Rep. of	154	-	-	-	-	-	21910	1090	-	23000
Malaysia	-	110	-	7584	-	-	154	-	-	154
Mexico	-	129	1180	314	-	-	16385	7122	921	15529
Sweden	-	2277	-	-	-	-	1623	2733	-	4357
Turkey	6	321	4268	-	-	-	2277	1275	3192	6744
Venezuela	352	-	-	2030	-	-	4595	-	-	4595
Yugoslavia	-	797	-	-	-	-	2382	58	3780	6220
Zimbabwe							797	-	196	933

Table 19

IRON ORE : Reported stocks

(000 tons)

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Algeria	..	..	..	..	..	..	**614#**	..	**805#**	**805#**
(producers)	..	..	..	..	..	..	..	..	597#	597#
(consumers)	..	..	..	..	..	..	..	..	208#	208#
Austria	..	..	..	..	..	..	**1623**	..	..	..
(producers)	..	..	..	..	..	..	380#	..	..	219#
(consumers)	..	..	..	..	..	..	1243#	..	..	..
Belgium(consumers)	..	..	..	..	..	..	..	..	..	1337#
Bolivia(producers)	..	..	..	..	..	..	..	..	..	3#
Brazil (producers)	31911	32498	36234	35887	32245	..	..	..	1342#	..
Canada	**14534**	**17226**	**16833**	**12492**	**10213**	**11179**	**9927**	**6846**	**7489**	**8178**
(producers)	11913	12938	12323	8322	5211	6796	5306	2449	3155#	3710#
(consumers)	6594	6680	4510	4170	5002	4383	4621	4397	4334#	4468#
Chile	..	..	..	..	..	..	**2963**	..	..	..
(producers)	..	..	..	..	..	..	1142#	1046#	1095#	..
(consumers)	..	..	..	..	..	..	1821#	..	..	..
Egypt	..	..	..	..	..	..	..	**513**	..	..
(producers)	..	..	..	..	..	..	..	455#	..	..
(consumers)	..	..	..	..	..	..	..	58#	..	..
Finland	..	..	..	..	..	..	**260**	..	..	..
(producers)	..	..	..	..	..	..	8#	..	..	..
(consumers)	..	..	..	..	..	..	252#	..	200#	260#
France	..	..	..	..	..	..	..	..	..	**3634**
(producers)	7167	6750	6377	5553	3212	2194	2036	2059	2594#	680#
(consumers)	..	..	..	..	..	..	..	..	..	2954#
Germany, Fed.Rep.	**15484**	**11829**	**13426**	**9662**	**10518**	**10554**	..	..	**3310#**	**3388#**
(producers)	728	906	986	883	621	152	209	82	..	48#
(consumers)	14756	10923	12440	8779	9897	10402	..	..	..	3340#
Hungary (consumers)	..	..	..	..	..	..	..	..	227#	455#
Japan	15090	15239	16522	15507	15934	15291	17494	14232	17118#	19171#
Korea, Rep. of	..	..	..	..	..	..	..	..	..	**1410**
(producers)	..	65	68	85	90	102	111	..	..	10#
(consumers)	..	..	..	..	..	..	..	..	..	1400#
Liberia	..	..	..	..	..	..	..	2500	1800	..
Malaysia (producers)	..	..	..	..	..	..	..	..	22#	1#
Mauritania (producers)	..	..	..	..	..	..	..	..	342#	866#
Mexico	..	..	..	..	..	..	**3381**	..	..	**794**
(producers)	..	..	..	..	..	..	3294#	..	..	274#
(consumers)	..	..	..	..	..	..	87#	..	..	520#
Morocco (producers)	..	..	..	..	..	..	..	..	68#	..
Netherlands(consumers)	..	..	..	..	..	..	..	..	..	1365#
Norway (producers)	..	..	..	..	..	..	..	..	..	751#
Peru (producers)	..	..	..	..	..	..	1280#	..	781#	..
Philippines (consumers)	..	..	..	..	..	..	..	..	4#	..
Poland (consumers)	..	..	..	..	..	..	4432#	..	9365#	..
Portugal (consumers)	..	..	..	..	..	..	17#	..	89#	192#
Portugal (producers)	..	..	..	..	..	..	..	..	1029#	..
Saudia Arabia (consumers)	..	..	..	..	..	230	..	..	..	..
Spain (producers)	..	1978#	1329#	1259#	1855#	1370#	1493#	917#	891#	845#
Sweden (consumers)	..	..	..	..	..	..	1960#	..	..	..
Sweden (consumers)	..	..	..	..	..	..	..	..	..	1752#
Turkey	..	..	..	..	..	..	..	..	**3091**	**3926**
(producers)	..	..	..	..	..	..	..	..	1793#	2310#
(consumers)	..	..	..	..	..	..	..	..	1298#	1616#
U.K. (consumers)	..	..	..	..	..	..	..	..	..	3852#
U.S.A	**54383**	**56396**	**48567**	**33315**	**32739**	**29858**	**22551**	**22877**	**20182**	**25900**
(producers)	13559	17849	16387	7125	7453	7071	5113	6312	3296	4575
(consumers)	36277	36782	30402	25902	24401	21631	17438	16565	16886	21325
Venezuela(producers)	..	..	..	..	..	..	..	2033#	2845#	1184#
Yugoslavia									**542**	**1917#**
(producers)	..	..	..	..	..	..	..	..	259#	79#
(consumers)	..	..	..	..	..	..	..	..	283#	1838#
Zimbabwe	..	..	..	..	..	..	**5327**	..	**4782**	**5848**
(producers)	..	..	..	..	..	..	3854#	..	4130#	4789#
(consumers)	..	..	..	..	..	..	1473#	..	652#	1059#

Table 20 A

IRON ORE : Reported stocks by products (producers), 1989

(000 tons)

Country	Non-Agglomerated ores							Agglomerated	
	Run of mine	Lumps	Fines	Concentrates	Pellet-feed	Others	Total	Pellets	Sinter
Algeria	597	-	-	-	-	-	597	-	-
Bolivia	-	-	-	3	-	-	3	-	-
France	..	..	..	..	..	..	680	-	-
Germany, Federal Republic of	..	..	..	..	..	..	48	-	-
Korea, Republic of	-	-	-	10	-	-	10	-	-
Malaysia	2	-	-	-	-	-	2	-	-
Mauritania	26	736	90	14	-	-	866	-	-
Mexico	-	-	-	54	-	-	54	187	33
Spain	..	..	..	..	..	..	845	-	-
Sweden	-	449	769	122	-	-	1,340	412	-
Turkey	962	872	322	34	-	-	2,190	120	-
Yugoslavia	15	-	-	49	-	-	54	15	-
Zimbabwe	26	85	4,679	-	-	-	4,789	-	-
Venezuela	-	843	341	-	-	-	1,184	-	-

Table 20 B

IRON ORE : Reported stocks by products (consumers), 1989

(000 tons)

Country	Non-Agglomerated ores							Agglomerated	
	Run of mine	Lumps	Fines	Concentrates	Pellet-feed	Others	Total	Pellets	Sinter
Algeria	208	-	-	-	-	-	208	-	-
EEC	..	..	..	..	..	..	**10,282**	**1,427**	**1,331**
Belgium	..	..	..	..	..	..	954	116	267
France	..	..	..	..	..	..	2,392	165	397
Germany, Federal Republic of	..	..	..	..	..	..	2,358	540	442
Netherlands	..	..	..	..	..	..	1,183	124	58
Portugal	..	..	..	..	..	..	104	82	6
Spain	..	..	..	..	..	..	620	235	174
United Kingdom	..	..	..	..	..	..	3,291	400	161
Finland	-	-	170	-	-	-	170	50	40
Japan	..	..	..	..	..	..	15,339	1,344	2,488
Korea, Republic of	150	240	750	90	-	-	1,230	170	-
Mexico	-	10	-	416	-	-	426	94	-
Turkey	-	631	523	55	-	284	1,493	123	-
Yugoslavia	41	-	-	1,797	-	-	1,838	-	-
Zimbabwe	2	37	1,019	-	-	1,059	-	-	

Table 21

PIG IRON : Production

(000 tons)

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
WORLD	**504309**	**530818**	**473503**	**461947**	**491307**	**499052**	**491748**	**507941**	**537330**	**543676**
DEVELOPED MARKET ECONOMY COUNTRIES	**279394**	**273515**	**228233**	**224056**	**245268**	**246423**	**228447**	**231930**	**253547**	**257692**
AMERICA	**73236**	**76485**	**47289**	**52775**	**56730**	**55429**	**49121**	**53636**	**60059**	**60816**
Canada	10893	9743	8000	8567	9643	9665	9249	9719	9498#	10139#
United States	62343	66742	39289	44208	47087	45764	39872	43917	50561	50677
EUROPE	**104940**	**102787**	**90571**	**88085**	**97275**	**99780**	**93012**	**92989**	**102386#**	**104117**
EEC	*96348*	*94971*	*83226*	*80250*	*88679*	*91079*	*84601*	*84752*	*93681#*	*95116*
Belgium-Luxembourg	13413	12676	10420	10388	11779	11501	10724	10559	11701#	11545
France	19159	17274	15047	13770	14719	15067	13714	13236	14786#	15071
Germany,Federal Republic of	33873	31876	27621	26598	30203	31531	28592	28119	32453#	32777
Greece	300	100	350	125	125	125E	-	-	- #	-
Italy	12219	12317	11626	10362	11628	11658	11898	11372	11376#	11779
Netherlands	4328	4601	3618	3747	4926	4819	4628	4574	4994#	5163
Portugal	370	314	214	364	474	519	422	430	445#	377
Spain	6370	6259	5998	5419	5338	5477	4811	4804	4691#	5588
United Kingdom	6316	9554	8332	9477	9487	10382	9812	11658	13235#	12816
EFTA	*8592*	*7816*	*7345*	*7835*	*8596*	*8701*	*8411*	*8237*	*8705*	*9001*
Austria	3485	3476	3114	3320	3745	3704	3349	3417	3664	3823#
Finland	2019	1965	1944	1598	2034	1901	1978	2064	2180#	2300#
Norway	618	570	475	596	549	606	570	571	367#	240#
Sweden	2435	1772	1780	2011	2214	2424	2435	2315	2494	2638#
Switzerland	35	33	32	10	54	66	79	70	-	-
SOUTH AFRICA	**7218**	**7365**	**6762**	**5215**	**5531**	**5038**	**5774**	**6317**	**6171**	**6513**
ASIA	**87041**	**80048**	**77655**	**72936**	**80403**	**80569**	**74651**	**73419**	**79221**	**80196**
Japan	87041	80048	77655	72936	80403	80369	74651	73419	79221#	80196#
OCEANIA	**6959**	**6830**	**5956**	**5045**	**5329**	**5607**	**5889**	**5569**	**5710**	**6050**
Australia	6959#	6830#	5956#	5045#	5329#	5607#	5889#	5569#	5710#	6050#
DEVELOPING COUNTRIES AND TERRITORIES	**42641**	**44467**	**46218**	**48408**	**54499**	**58460**	**57521**	**65231**	**71531**	**74815**
AFRICA	**2635**	**2655**	**2714**	**2517**	**2787**	**3166**	**3259**	**3094#**	**2899**	**3065E**
Algeria	669	897	1059	1113	1150	1400	1400	1300	1300	1300#
Egypt	1027	965	1080	898	962	930	1066	1071#	1112	1100E
Tunisia	153	150	97	147	150	142	149	163	128	140E
Zimbabwe	786	643	478	359#	525#	674	644	560	359#	525#
AMERICA	**19348**	**17116**	**16692**	**18482**	**23189**	**25225**	**22834**	**28179**	**30280**	**31472**
Argentina	1027	912	1015	909	893	1309	1639	1775	1596#	2169#
Brazil	12999	11017	11054	12945	17230	18961	15846	21121#	23222#	24381
Chile	644	582	455	540	596	575	592	613	778	679
Colombia	279	233	207	268	271	247	319	326	370#	297
Mexico	3639	3767	3598	3538	3869	3530	3728	3692	3663	3230#
Peru	262#	187#	161#	113#	4#	163#	216#	178#	166#	227
Venezuela	498	418	202	169	326	440	494	474	485#	489#
ASIA	**18233**	**21879**	**24110**	**24567**	**25668**	**26980**	**28365**	**31091**	**35436**	**37376**
India	8510	9474	9640	9162	9464	9835	10514	10923	11724#	12150
Indonesia	45	230	240	250	250E	250E	-	-	-	- #
Iran (Islamic Republic of)	200	210	220	240	250E	250E	250E	250E	250E	250E
Malaysia	200	220	220	230	200E	200E	200E	200E	- #	-
Pakistan	-	130	450	490	550	803	895	905	905	910E
Philippines	19	20	20	22	20	20E	20E	20E	20E	-
Republic of Korea	5577	7925	8440	8024	8763	8833	9003	11057	12578	14840#
Taiwan (province of China)	1685	1610	2695	3415	3288	3429	3740	3658	5487#	5708#
Thailand	17	10	6	10	10	10	10E	10E	10E	10E
Turkey	1980#	2050#	2179#	2724#	2873#	3350#	3733#	4068#	4462#	3508#
EUROPE	**2425**	**2817**	**2702**	**2842**	**2855**	**3089**	**3063**	**2867**	**2916**	**2902**
Yugoslavia	2425#	2817	2702	2842#	2855	3089#	3063	2867	2916#	2902#

Table 21

PIG IRON : Production

(000 tons)

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
COUNTRIES OF EASTERN EUROPE	**143474**	**175336**	**160017**	**146603**	**145728**	**144579**	**149340**	**149850**	**149312**	**148269**
Bulgaria	1539	1514	1560	1635	1583	1712	1605	1657	1484	1533E
Czech and Slovak Federal Republic	9819	9903	9300	9466	9561	9562	9573	9788	9706	9911=
German Democratic Republic	2458	2432	2149	2207	2357	2578	2738	2755	2786	2732
Hungary	2214	2212	2200	2059	2150	2102	2061	2109	2000=	1951
Poland	11150	8980	8300	8190	9627	9436	10194	10121	9837=	9170E
Romania	9012	8857	8637	12593	9557	9212	9329	9500E	8941=	9051=
USSR	107282	141438	127671	110453	110893	109977	113840	113920	114558=	113921=
SOCIALIST COUNTRIES OF ASIA	**38800**	**37500**	**39035**	**42880**	**45812**	**49590**	**56440**	**60930E**	**62940E**	**62900E**
China	35400	34000	35535	37380	40062	43840	50640	55030	57040	57000E
Democratic Peoples Republic of Korea	3400	3500	3500	5500	5750	5750	5800	5900E	5900E	5900E

Table 22

SPONGE IRON (DRI) : Production

(000 tons)

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
WORLD	**7214**	**7894**	**7283**	**7797**	**9192**	**10988**	**12654**	**13639**	**13803**	**15535**
DEVELOPED MARKET ECONOMY COUNTRIES	**2230**	**2270**	**1180**	**870**	**1180**	**1560**	**2070**	**1980**	**2060**	**2189**
AMERICA	**1510**	**1500**	**570**	**540**	**620**	**880**	**850**	**940**	**1060**	**996**
Canada	890	960	500	540	500	740	690	730	770#	705
United States	620	540	70	-	120	140	160	210	290	291
EUROPE	**450**	**490**	**350**	**90**	**120**	**100**	**170**	**200**	**270**	**353**
EEC	*450*	*480*	*320*	*70*	*100*	*100*	*170*	*200*	*270*	*353*
Germany,Federal Republic of	450	480	320	70	100	100	170	200	270	353
EFTA	-	*10*	*30*	*20*	*20*	-	-	-	-	-
Sweden	-	10	30	20	20	-	-	-	-	-
SOUTH AFRICA	**120**	**120**	**100**	**80**	**270**	**410**	**790**	**840**	**730**	**840**
OCEANIA	**150**	**160**	**160**	**160**	**170**	**170**	**260**	-	-	-
New Zealand	150	160	160	160	170	170	260	-	-	-
DEVELOPING COUNTRIES AND TERRITORIES	**4984**	**5624**	**6103**	**6907**	**7642**	**9008**	**9834**	**10399**	**10063**	**11646**
AFRICA	-	-	**80**	**160**	**150**	**220**	**140**	**610**	**902**	**1040**
Egypt	-	-	-	-	-	-	30	470	770	817
Libyan Arab Jamahiriya	-	-	-	-	-	-	-	-	-	90
Nigeria	-	-	80	160	150	220	110	140	132#	133
AMERICA	**4164**	**4664**	**5083**	**5397**	**5392**	**5638**	**5976**	**6462**	**5869**	**6431**
Argentina	780	830	890	950	910	990	950	1040	1067#	1166#
Brazil	270	230	230	250	250	290	300	200	195#	239
Mexico	1630	1720	1510	1500	1450	1454	1370	1560	1617	2237#
Peru	34#	54#	43#	27#	62#	44#	56#	52#	49#	50
Trinidad and Tobago	20	190	240	280	240	220	380	490	593	695
Venezuela	1430	1640	2170	2390	2480	2640	2920	3120	2348#	2044#
ASIA	**820**	**960**	**940**	**1350**	**2100**	**3150**	**3718**	**3327**	**3292**	**4175**
India	10	20	30	40	80	90	148#	177#	195#	360
Indonesia	370	470	440	570	740	1000	1300	1030	980	1210#
Iran (Islamic Republic of)	-	-	-	-	-	30	-	-	-	-
Iraq	20	-	-	-	-	-	-	-	100	200
Malaysia	-	-	-	-	40	520	580	590	427#	644
Myanmar(Union of)	-	10	10	-	10	30	30	20	20	20
Qatar	420	460	450	390	500	490	490	470	495	534
Saudi Arabia	-	-	10	350	730	990	1170	1040	1075	1207
COUNTRIES OF EASTERN EUROPE	..	-	-	**20**	**370**	**420**	**750**	**1260**	**1680**	**1700**
USSR	..	-	-	20	370	420	750	1260	1680	1700

Table 23

METALLICS : Reported consumption, 1988-1989

(000 tons)

Country	Pig Iron		Sponge Iron		Ferrous Scrap	
	1988	1989	1988	1989	1988	1989
Argentina	1710	2068	3403	1100	1315	1274
Australia	5680	6050	-	-	-	-
Brazil	19173	..	195	..	7675	..
Canada	9827	10128	-	-	7476	7790
Egypt	1071	..	-	..	322	..
Finland	2190	..	-	..	440	..
Greece	10	16	-	-	1078	1071
Hungary	2373	100	-	-	1750	1494
India	9877	..	31	..	2355	..
Indonesia	..	125	..	1286	..	923
Japan	79941	80448	-	-	42975	45872
Korea Rep.	..	15290	-	-	..	1580
Malta	..	0	-	-	..	-
Malaysia	18	..	-	..	1	..
Mexico	..	3230	..	2237	1	2720
Nigeria	-	-	960	..	212	..
Norway	359	..	-	..	618	..
Philippines	18	..	34	..	233	..
Poland	10373	..	-	..	8977	..
Sri Lanka	..	0	-	-	..	..
Sweden	..	2620	..	-	2964	2589
Turkey	4938	3928	1	24	4200	5098
Venezuela	..	489	..	2341	..	489
Yugoslavia	..	2650	..	-	2127	2417
Zimbabwe	358	518	-	-	-	115

Table 24

METALLICS : Reported exports, 1988-1989

(000 tons)

Country	Pig Iron		Sponge Iron		Ferrous Scarp	
	1988	1989	1988	1989	1988	1989
Argentina	..	0	..	..	..	0
Australia	25	..	-	..	1,000	..
Brazil	2,533	3,000	-	..	0	..
Canada	355	..	3	..	1,679	..
Czechoslovakia	-	-	-	-	328	60
Hungary	-	45	-	-	150	112
Italy	35	24	-	-	..	4
Japan	43	25	-	-	416	587
Malaysia	-	0	-	397	-	24
Nigeria	-	..	13	..	-	..
Norway	31	52	-	-	1	1
Sri Lanka	..	-	..	-	..	40
Sweden	..	13	..	3	..	142
Turkey	89	0	-	0	6	4
USA	65	..	..	..	9,160	11,078
USSR	6,141	..	-	..	3,230	..
Venezuela	-	-	127	659	277	1,330
Yugoslavia	8	..	-	..	8	..

Table 25

METALLICS : Reported imports, 1988-1989

(000 tons)

Country	Pig Iron		Sponge Iron		Ferrous Scarp	
	1988	1989	1988	1989	1988	1989
Argentina	111	2	3,131	-	-	11
Australia	9	..	-	..	2	..
Brazil	-	..	-	..	87	..
Canada	9,022	..	2	..	1,186	..
Czechoslovakia	675	673	12	-	11	13
Finland	-	-	-	-	100	60
Hungary	250	345	-	-	-	-
Indonesia	80	-	-	76	..	-
Japan	2,917	2,288	-	-	1,791	1,157
Korea Republic of	801	590	-	-	..	520
Malaysia	18	26	-	0	1	0
Malta	..	0	-	-	..	-
Norway	2	5	-	2	160	-
Philippines	25	..	(HBI) 45	..	109	..
Poland	1,281	1,199	-	-	-	
Sweden	60	45	..	-	800	624
Turkey	144	179	1	24	2,699	355
Venezuela	-	-	216	304	-	122
Yugoslavia	38	110	-	-	37	19

Table 26

CRUDE STEEL : Production

(000 tons)

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
WORLD	**713558**	**708386**	**645068**	**662515**	**711009**	**718803**	**713146**	**734827**	**778097**	**784072**
DEVELOPED MARKET ECONOMY COUNTRIES	**399010**	**395569**	**331374**	**335720**	**367158**	**365015**	**341782**	**348882**	**378347**	**381161**
AMERICA	**117357**	**124434**	**79530**	**89594**	**98660**	**94725**	**88133**	**95644**	**105537**	**103892**
Canada	15901	14811	11865	12832	14699	14637	14081	14737	14866#	15458#
United States	101456	109614	67636	76762	83941	80068	74032	80877	90631	88414
EUROPE	**153241**	**152498**	**137264**	**135979**	**148507**	**149597**	**139219**	**139239**	**151461**	**152285**
EEC	*140081*	*139862*	*125082*	*123231*	*134405*	*135672*	*125714*	*125958*	*137426#*	*138360*
Belgium-Luxembourg	17040	16167	13502	13450	15257	14628	13420	13085	14883#	14642
Denmark	734	612	560	493	548	528	632	605	650#	624
France	21176	21258	18417	17582	19005	18815	17670	17432	18598#	18650
Germany,Federal Republic of	43838	41610	35880	35729	39389	40497	37134	36248	41023#	41073
Greece	935	909	933	868	895	985	1010	908	959#	956#
Ireland	2	33	61	141	166	203	208	220	271#	324
Italy	26501	24777	24003	21811	24062	23898	22985	22819	23762#	25047
Netherlands	5272	5472	4354	4477	5738	5519	5283	5082	5518#	5681
Portugal	663	555	507	685	697	684	721	732	811#	742
Spain	12643	12896	13160	13009	13497	14193	11882	11691	11886#	12463
United Kingdom	11277	15573	13705	14986	15121	15722	14769	17136	19065#	18158
EFTA	*13160*	*12636*	*12182*	*12748*	*14102*	*13925*	*13505*	*13281*	*14035*	*13925*
Austria	4624	4656	4258	4411	4868	4663	4292	4301	4560#	4718#
Finland	2508	2429	2420	2416	2634	2518	2586	2668	2798#	2921#
Norway	862	847	768	876	916	944	836	851	910#	678#
Sweden	4237	3770	3900	4210	4706	4813	4716	4595	4779	4692#
Switzerland	929	934	836	835	978	987	1075	866	988	916
SOUTH AFRICA	**9078**	**8991**	**8320**	**7004**	**7732**	**8507**	**9055**	**8836**	**8709**	**9567**
ASIA	**111510**	**101790**	**99637**	**97252**	**105676**	**105381**	**98385**	**98629**	**105780**	**108009**
Israel	115	114	87	83	92	100	110	116	99	100E
Japan	111395	101676	99550	97169	105584	105281	98275	98513	105681#	107909#
OCEANIA	**7824**	**7856**	**6623**	**5891**	**6583**	**6805**	**6990**	**6534**	**6860**	**7408**
Australia	7594	7635	6371#	5657#	6303#	6578#	6703#	6125#	6400#	6800#
New Zealand	230	221	252	234	280	227	287	409	460	608
DEVELOPING COUNTRIES AND TERRITORIES	**64341**	**65470**	**67522**	**71630**	**79823**	**86471**	**90907**	**98567**	**109281**	**115624**
AFRICA	**2586**	**2653**	**2867**	**3000**	**2900**	**3715E**	**3462**	**3828**	**4498E**	**6388**
Algeria	388	557	868	950	1050	1414	1400	1400	1500	3300#
Egypt	968	1015	1074	979	928	1028	1013	1433	2025	2011
Mauritania	10	10	10	5	5	2#	5#	7#	5E	5E
Morocco	7	5	5	4	4	5E	6E	5E	5E	5E
Nigeria	20	22	90	182	229	321	134#	137#	139#	213
Tunisia	178	173	107	163	166	160	181	188	162	197
Zimbabwe	805	691	538	647	423	731	674	597	602	592#
Other Africa	210	180	175	70	65	54E	49	61	60E	65
AMERICA	**29036**	**27291**	**27065**	**28944**	**33465**	**36031**	**37651**	**39488**	**42179**	**42566**
Argentina	2687	2526	2900	2942	2647	2939	3242#	3603#	3624#	3893#
Brazil	15215	13226	13000	14671	18385	20454	21228#	22228#	24657#	25017
Chile	704	644	492	618	692	689	706	720	899	813
Colombia	420	402	422	482	507	530	632	690	712	706
Cuba	304	330	301	354	338	408	411	402	363	450E
Mexico	7065	7605	7060	6917	7482	7299	7225#	7642#	7805#	7870#
Peru	447	364	272	299	337	368	358#	400#	463#	397
Trinidad and Tobago	-	45	219	210	172	164	331	388	363	347
Uruguay	18	14	20	46	41	39	31	30	29	39
Venezuela	2077	2030	2278	2320	2770	3055	3402	3297#	3163#	2942#
Other America	99	105	101	85	94	86	85	88	99	92
ASIA	**29085**	**31550**	**33740**	**35552**	**39226**	**42245**	**45275**	**50884**	**58117**	**62168**
Bangladesh	131	134	78	58	88	122	116	120	120	120E
Hong Kong	74	80	80	120	120	120E	120E	120E	120E	150E
India	10765	10997	10237	10237	10549	11936	12197	13121	14309	14429
Indonesia	543	621	693	983	1171	1374	1729	2059	1850	2303#
Iran (Islamic Republic of)	550	565	550	734	854	836	838	839	978	1000E
Malaysia	210	210	215	350	350	400	400	550	550E	550E
Myanmar (Union of)	40	45	40	20	20	20E	32#	30E	30E	30E
Pakistan	20	10	120	300	750	750	900	1000	1200	1200E

Table 26

CRUDE STEEL : Production

(000 tons)

Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Philippines	430	400	370	200	250	250	209#	261#	252#	400E
Qatar	461	469	495	469	478	533	507	492	527	585
Republic of Korea	8558	10753	11758	11915	13034	13540	14555	16782	19118	21873
Saudi Arabia	100	150	150	275	842	1106	1100	1365	1614	1810
Singapore	340	263	359	305	362	365	390	422	413	400E
Syrian Arab Republic	140	400	400	100	100	70E	70E	60E	60E	30#
Taiwan (province of China)	3417	3157	4152	5031	5241	5306	5545	5915	8288	8657
Thailand	300	312	244	381	447	425	450	534	535	550E
Turkey	2536	2425	3183#	3834#	4330#	4862#	5927#	7044#	7983#	7901#
United Arab Emirates	140	145	150	50	50	50E	50E	40E	40E	40E
Other Asia	330	414	466	190	190	180	140	130	130	140
EUROPE	**3634**	**3976**	**3850**	**4134**	**4232**	**4480**	**4519**	**4367**	**4487**	**4502**
Yugoslavia	3634#	3976#	3850#	4134#	4232#	4480#	4519#	4367#	4487#	4502#
COUNTRIES OF EASTERN EUROPE	**209157**	**206127**	**203552**	**210025**	**214253**	**214023**	**221649**	**224368**	**224208**	**219007**
Bulgaria	2567	2482	2580	2825	2878	2926	2898	3044	2880	2899
Czech and Slovak Federal Republic	14925	15271	15000	15024	14831	15036	15112	15416	15379#	15465#
German Democratic Republic	7308	7467	7250	7219	7573	7840	7967	8243	8133	7829
Hungary	3767	3646	3720	3617	3751	3647	3715	3622	3580#	3305
Poland	19484	15719	14794	16236	16553	16126	17144	17146	16885#	15094
Romania	13175	13025	13055	12593	14437	13795	14276	14962	14314#	14415#
USSR	147931	148517	147153	152511	154230	154653	160537	161935	163037#	160000#
SOCIALIST COUNTRIES OF ASIA	**41050**	**41220**	**42620**	**45140**	**49775**	**53294**	**58808**	**63010**	**66261**	**68280**
China	37040	35600	37000	39040	43475	46794	52208	56280	59431	61430
Democratic Peoples Republic of Korea	4000	5500	5500	6100	6300	6300	6600	6730	6830	6850E
Viet Nam	10	120	120	-	-	-	-	-	-	-

ANNEX A

Iron ore questionnaire

Replies

Country	date of reply	A		B				C	D			E	
		A 1	A 2	B 1	B 2	B 3	B 4		D 1	D 2	D 3	E 1	E 2
Algeria	15 June 90	*	-	*	*	*	*	*	*	-	*	-	-
Argentina	15 June 90	*	*	*	*	*	-	-	-	*	*	-	-
Australia	30 May 90	*	-	*	*	*	*	-	*	*	*	*	*
Austria	17 April 90	*	-	-	-	-	-	*	-	*	-	-	-
Bhutan	6 March 90	-	-	-	-	-	-	-	-	-	-	-	-
Bolivia	10 April 90	*	-	-	-	-	-	*	*	-	-	-	-
Brazil	17 April 90	*	*	*	*	*	*	*	*	-	*	*	-
Canada	2 April 90	*	-	*	-	-	-	*	*	*	*	-	-
Chile	29 June 90	*	-	*	-	*	-	-	*	-	-	-	-
China	10 July 90	-	-	-	-	-	-	-	-	*	*	-	-
Czechoslovakia	5 April 90	*	-	-	-	-	-	-	-	*	-	-	-
EEC	19 June 90	*	*	*	*	*	-	*	*	*	*	-	-
Finland	5 April 90	-	*	*	*	*	-	*	-	*	*	-	-
Greece	18 June 90	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	2 July 90	-	*	*	*	*	-	*	-	*	*	-	-
Indonesia	30 April 90	-	-	-	-	-	-	-	-	*	-	-	-
Japan	12 April 90	-	*	*	*	*	-	*	*	*	-	-	-
Korea Rep. of	12 june 90	*	-	*	*	*	-	*	-	*	*	-	-
Malta	28 Feb. 90	-	-	-	-	-	-	-	-	-	-	-	-
Malaysia	28 May 90	*	-	*	-	-	-	*	*	*	*	-	-
Mauritania	31 May 90	*	-	-	-	-	-	*	*	-	*	*	-
Mexico	18 April 90	*	*	*	*	*	-	*	-	*	*	*	*
Morocco	26 March 90	*	-	-	-	-	-	-	*	-	-	-	-
Norway	3 April 90	*	-	-	-	-	-	*	*	*	*	-	-
Poland	11 May 90	-	-	-	-	-	-	-	-	*	-	-	-
Romania	21 June 90	*	-	-	-	-	-	-	-	*	-	-	-
Sri Lanka	15 Feb. 90	-	-	-	-	-	-	-	-	-	-	-	-
Sweden	26 April 90	*	-	*	*	*	-	*	*	*	*	-	*
Syrian arab Rep.	21 May 90	*	-	-	-	-	-	-	-	-	-	-	-
Turkey	10 April 90	*	*	*	*	*	*	*	-	*	*	-	-
Uganda	22 June 90	-	-	-	-	-	-	-	-	-	-	-	-
USSR	22 May 90	*	*	-	-	-	-	-	*	*	*	-	-
Venezuela	7 June 90	*	-	*	*	*	*	*	*	-	-	*	-
Yugoslavia	26 April 90	*	*	*	*	*	-	*	*	*	*	-	-
Zimbabwe	3 April 90	*	*	*	*	*	-	*	-	-	-	-	-

CONTENTS : Iron ore

A. **Production and production capacity**
- A.1. Iron production by products
- A.2. Production of agglomerates by iron and steel producers

B. **Consumption**
- B.1. Iron ore consumption by products
- B.2. Iron ore consumption by source
- B.3. Iron ore consumption in metallurgical uses
- B.4. Iron ore consumption in non-metallurgical uses

C. **Stocks**

D. **International Trade**
- D.1. Volume of exports by destination and product type
- D.2. Volume of imports by origin and product type
- D.3. Value of exports and or imports

E. **Production Capacity**
- E.1. Planned additions
- E.2. Planned reductions

ANNEX B

Iron ore questionnaire

Replies

Country	date of reply	F 1			F 2	F 3			G 1			G 2	H		
		F.1.1	F.1.2	F.1.3		F.3.1	F.3.2	F.3.3	G.1.1	G.1.2	G.1.3		H.1	H.2	H.3
Algeria	26 June 90	*	-	-	-	*	-	-	-	-	-	-	-	-	-
Argentina	15 June 90	*	*	-	*	*	*	*	*	*	*	*	*	*	*
Australia	30 May 90	*	-	-	-	*	-	*	*	-	-	-	-	-	-
Austria	17 April 90	*	-	-	-	*	-	-	-	-	-	-	-	-	-
Bolivia	10 April 90	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brazil	17 April 90	*	*	*	*	*	*	*	*	*	*	*	*	-	-
Bhutan	6 March 90	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Canada	2 April 90	*	*	-	-	*	-	-	*	-	*	-	-	-	-
Chile	29 June 90	-	-	-	-	-	-	-	-	-	-	-	-	-	-
China	10 July 90	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Czechoslovakia	5 April 90	*	-	-	*	*	-	-	-	-	-	-	*	*	*
EEC	12 June 90	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Finland	5 April 90	*	-	*	*	*	*	*	*	-	-	-	-	*	*
Greece	18 June 90	-	-	-	-	*	*	*	*	-	*	*	-	-	-
Hungary	2 July 90	*	-	*	*	*	*	*	*	-	*	*	*	*	*
Indonesia	30 April 90	*	*	*	-	*	*	-	*	*	*	-	-	*	*
Japan	12 April 90	*	-	*	-	*	*	*	-	-	*	*	*	*	-
Korea, Rep. of	12 June 90	*	-	*	-	*	*	*	*	-	*	*	-	*	*
Malta	28 Feb 90	-	-	-	-	-	-	-	*	-	-	-	-	*	*
Malaysia	28 May 90	-	-	-	-	-	-	-	-	-	-	-	*	*	-
Mauritania	3 July 90	-	-	-	-	*	*	-	-	-	-	-	-	-	-
Mexico	18 April 90	*	*	*	*	*	*	*	*	*	*	*	-	-	-
Morocco	26 March 90	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Zealand	3 July 90	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Norway	3 April 90	*	-	-	*	*	-	-	-	-	-	-	*	*	*
Poland	11 May 90	-	-	-	-	-	-	-	-	-	*	-	-	*	-
Romania	21 June 90	*	-	-	-	*	-	-	-	-	-	-	-	-	-
Sri Lanka	15 Feb 90	*	-	*	-	-	-	-	*	-	*	-	*	-	-
Sweden	26 April 90	*	*	*	*	*	*	*	*	*	*	-	*	*	*
Syrian Arab Rep.	21 May 90	-	-	-	-	*	*	*	-	-	-	-	-	-	-
Turkey	10 April 90	*	-	*	*	*	*	-	*	*	-	-	*	*	*
Uganda	22 June 90	-	-	-	-	*	-	-	-	-	*	*	-	-	-
USSR	22 May 90	-	-	-	-	*	-	-	-	-	-	-	-	-	-
Venezuela	7 June 90	*	*	*	*	*	*	-	*	*	*	-	*	*	*
Yugoslavia	26 April 90	*	-	*	*	*	*	*	*	-	*	*	*	*	*
Zimbabwe	3 April 90	*	-	*	-	*	*	*	*	-	*	*	-	-	-

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F.1. Production of Metallics
F.1.1. Pig iron
F.1.2. Sponge iron or DRI
F.1.3. Ferrous scrap generation
F.2. Production of ferro-alloys
F.3. Crude steel production
F.3.1. By process
F.3.2. By utilization
F.3.3. share of continuous casting
G.1. Consumption of metallics
G.1.1. Pig iron
G.1.2. Sponge iron or DRI
G.1.3. Ferrous scrap
G.2. Average consumption of metallics per ton of steel output
H. International trade in metallics
H.1 Volume of exports of metallics by destination
H.2. Volume of imports of metallics by origin
H.3. Value of exports and or imports of metallics

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on Trade and Development

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Committee on Commodities
Intergovernmental Group of Experts on Iron Ore
First session
Geneva, 22 October 1990
Item 5 of the provisional agenda

ANNOTATED BIBLIOGRAPHY ON IRON ORE - 1990

CONSIDERATION OF AN ANNOTATED BIBLIOGRAPHY OF RELEVANT STUDIES, INCLUDING THOSE CARRIED OUT BY OTHER INTERNATIONAL ORGANIZATIONS, AND, IN PARTICULAR, SUMMARIES OF THOSE WHICH FOCUS ON IRON ORE MINING CAPACTIY, AS WELL AS ON THE EVOLUTION OF DEMAND AND SUPPLY OF IRON ORE

Prepared by the UNCTAD secretariat

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INTRODUCTION

1. In response to the wish expressed by the Intergovernmental Group of Experts on Iron Ore at its third session that the "Annotated bibliography on iron ore" submitted to the group in 1989 should be regularly updated by the secretariat and maintained as a regular item on the agenda, this supplement to the annotated bibliography (TD/B/IPC/IRON ORE/AC.1/15) has been consequently prepared. It was also suggested that Governments transmit to the secretariat copies of studies on iron ore matters undertaken in their respective countries with a view to enlarging the coverage of the bibliography.

2. The present supplement contains information provided by relevant international organizations and replies from Governments received by the secretariat as of 30 June 1990, in pursuance of a note verbale by the Secretary-General of UNCTAD of 4 April 1990 to all States members of UNCTAD inviting Governments of countries producing and consuming iron ore to provide the secretariat with copies of any studies undertaken in their respective countries in the 1980s dealing with the production, consumption and/or trade in iron ore, including aspects such as planned closures and expansions of existing capacities, as well as new capacity, and the evolution of demand and supply for iron ore.

Part I

RELEVANT STUDIES AND PUBLICATIONS BY INTERNATIONAL ORGANIZATIONS - 1989/1990

1. UNCTAD

1.1 Commodities Division

1.1.1 Review of the current market situation and outlook for iron ore

TD/B/IPC/IRON ORE/AC.1/14 - Geneva, July 1989

TD/B/C.1/IRON ORE/2 - Geneva, July 1990

3. These documents form part of a series initiated in 1978, although interrupted from 1979 to 1983. The aim has been to facilitate an assessment by Governments and industry of the market situation for iron ore. The reports are for general distribution and are issued in the six official languages: Arabic, Chinese, English, French, Russian and Spanish. Featured are recent developments on production of steel, pig iron and sponge iron (DRI), the ferrous scrap market and iron ore stock movements. The supply capacity at the regional and global levels including financing and investments plans is also treated. The reports examine international marketing practices and commercial issues relating to the volume and value of international trade, prices, freight rates and transportation costs. A concluding section deals with the outlook for the iron ore market.

1.1.2 Iron Ore Statistics

For the period 1979-1988 (TD/B/IPC/IRON ORE/AC.1/13 - August 1989)

For the period 1980-1989 (TD/B/C.1/IRON ORE/3 - August 1990)

4. These statistical compendia are issued under the UNCTAD regular work programme for iron ore. The series was initiated in 1981 and has appeared annually since 1984. The purpose is to publish world statistics to complement the report on market developments. With general distribution UNCTAD's Iron Ore Statistics are available in all official languages. Covering the last 10 years, the statistical series contains data country by country for: world production of iron ore in natural weight and estimated iron content as well as iron ore production by product; world production of pellets; world production of sinter; world volume of exports and imports of iron ore in natural weight; world exports of pellets and a network of iron ore exports by major destinations; value of world exports and imports of iron ore in dollar terms; apparent and actual consumption of iron ore as well as actual consumption by product; stocks of producing and consuming countries by product; world production of pig iron and sponge iron; consumption, imports and exports of ferrous metallics; and world crude steel production.

1.2 Shipping Division

1.2.1 Review of maritime transport 1988 - TD/B/C.4/230 - Sales No. E.89.II.D.16

5. This sales publication prepared under the work programme of the UNCTAD Committee on Shipping is issued annually in all UNCTAD languages. The analysis on international seaborne trade includes iron ore. The review also covers: developments of the world fleet including the problem of tonnage supply; shipbuilding; freight markets; multimodal transport and technological developments, as well as other major related features, including a short-term outlook.

1.2.2 Others

6. Other recent reports which might also be of interest to iron ore importing and exporting countries are:

- Directory of Services for technical assistance in shipping, ports and multimodal transport to developing countries - SHIPASSIST UNCTAD/SHIP/196/Rev.2, March 1989 - Available in Arabic, English, French, and Spanish for general distribution. This document provides details of technical assistance available from governmental, intergovernmental and non-governmental organizations in the shipping field.

- The economic and commercial implications of the entry-into-force of the Hamburg Rules and the Multimodal Transport Convention - Part II (TD/B/C.4/315), November 1989 - General distribution in all official languages.

- UNCTAD Model Clauses on Maritime Hull and Cargo Insurance - TD/B/C.4/ISL/50/Rev.1 - Sales No. E.89.II.D.E, August 1989 - for sale in all official languages.

- Developments in multimodal transport - (TD/B/C.4/328) January 1990. For general distribution in all official languages. It includes analyses of multimodal transport and technological developments, and also describes the role of the freight forwarding industry, particularly in developing countries.

- Economic co-operation among developing countries in the field of shipping, ports and multimodal transport - TD/B/C.4/324, February 1990. For general distribution in all official languages.

- Developments in world shipping - TD/B/C.4/333, March 1990. For general distribution in all official languages. An analysis of the imbalance between supply and demand in world shipping.

- Development and improvement of ports - TD/B/C.4/AC.7/8, April 1990. For general distribution in English and French. This report identifies possible spheres of concern and the main impediments to co-operation among ports in developing countries.

- Experience of countries members of the European Communities in developing co-operation in the field of maritime transport - UNCTAD/SHIP/624, April 1989. For general distribution in all official languages.

- Experience of member countries of the Council for Mutual Economic Assistance in developing co-operation in the field of maritime transport - UNCTAD/SHIP/625, April 1989. For general distribution in all official languages.

1.3 International Trade Programmes

1.3.1 Structural adjustment issues in the world economy - UNCTAD/ITP/25, March 1990. General distribution in English only.

7. Prepared by the UNCTAD secretariat, the report analyses major structural adjustment problems in the world economy, taking up the major causes and the policy issues to which they give rise. Chapter III, dealing with structural adjustment, trends and policies in industrial sectors of particular export interest to developing countries, contains an analyses of the iron and steel sector. Major shifts in steel production and trade and the factors underlying these shifts are discussed along with adjustment policies and the prospects for developing countries.

2. Other United Nations organizations or specialized agencies

2.1 Economic Commission for Africa - ECA

2.1.2 Assessment of iron ore production in West Africa during 1979-1987 and prospects beyond 1987 - NRD/MES/4/89, December 1989 - Limited distribution in English and French.

8. This study was prepared by the ECA secretariat under its regular work programme and priorities for the biennium 1988/1989. It examines and analyses iron ore statistics for the period under review, and discusses the world steel industry. An analysis of the resources and the exploitation of iron ore in West Africa is also made, indicating likely future trends. The study concludes that joint-ventures among African countries, with the participation of the private sector, including foreign capital, may be a solution for the development of the iron ore industry in West Africa.

2.2 Economic Commission for Europe - ECE

2.2.1 The Steel Market in 1988 - ECE/STEEL/66 - Sales No. E.88.IF.E.29 - November 1989.

9. This sales publication is available in English, French and Russian. Covering steel developments in 1988, it presents an annual review of the steel market and main factors conditioning the supply of and demand for steel products in Eastern and Western Europe, North and South America, Japan, Australia, China and most of the emerging steel-producing countries of the Middle- and Far-East. It describes the past evolution of and prospects for the main macro-economic trends, the main steel-consuming sectors, the steel trade, main raw materials such as iron ore, scrap, coal, etc. The 1989 edition of this report will be published in October 1990.

2.2.2 The Importance of the Iron and Steel Industry for the Economic Activity of ECE Member Countries - ECE/STEEL/64 - Sales No. E.89.II.E.22, October 1989 - Published in English, French and Russian.

10. This study describes developments in the iron and steel industry, the importance of this industry to the economy of industrialized countries, as well as the industry's structure and present problems. While the comparative situation of countries is generally well known in terms of technological evolution and market performances, the study pays particular attention to lesser known facts about company structure and organization, which have undergone considerable change. The study contains 15 monographs describing the development of the iron and steel industry in selected regions and countries along with tabular replies to a survey in which 20 countries participated, among them Australia, Japan, United States of America, five CMEA member countries and the European Community.

2.2.3 The Recuperation and Economic Utilization of By-products of the Iron and Steel Industry

11. This study now under preparation, presents an in-depth analysis of the utilization of by-products, the increase of their value, and the products derived from iron- and steel-making. The expected publication date is October 1990.

2.3 Economic Commission for Latin America and the Caribbean - ECLAC

2.3.1 The mineral industry in the year 2000 - Latin America: Mineral Projects and their financing - LC/R.807, October 1989 - Restricted distribution in Spanish only.

12. This study analyses the historical evolution of mineral investments and distribution of financial resources in Latin America from the 1960's to 1988 indicates projections for the period 1989-2000. It examines the main effects of investments likely to be made in the region, as well as the sources of financing. Emphasis is on six traditional minerals, aluminium, copper, tin, nickel, lead and zinc, but reference is made to iron ore projects in the region. The study advocates that in order to meet the basic requirements for national sovereignty over mineral resources and to avoid higher external indebtness, joint-ventures should be set up between industries in the national and foreign private sector or mixed enterprises combining national and international investment.

2.4 Economic Commission for Asia and the Pacific - ESCAP

2.4.1 The triennial review of mineral development activities in the ESCAP region - 1985-1987 Mineral resources development series No. 57 - Sales No. E.89.II.F.16 - December 1989.

13. ESCAP undertakes a triennial review of mineral resources in the region on a regular basis, because of the important role played by mineral resources in the economic development of the countries in the region. The document covers the period 1985-1987, and briefly refers to more recent developments. One section is devoted to iron ore, describing iron ore developments in the countries of the region.

2.4.2 Atlas of mineral resources of the ESCAP region: New Zealand - Volume 4, 1988, - ST/ESCAP/561

14. This publication shows the distribution of mineral deposits in New Zealand including iron ore sands. Information provided is on reserves, geographic locations, their relation to the geologic environment and other characteristics. It contains an explanatory brochure, five atlas sheets, including two geological and two mineral resources maps.

2.4.3 Atlas of mineral resources of the ESCAP region: Sri Lanka - Volume 5, 1989 - ST/ESCAP/718 - Sales No. E.89.II.F.14.

15. This publication shows the distribution of mineral deposits in Sri Lanka, including iron ore. The publication consists of an explanatory brochure, and a geological and a metamorphic map, as well as the map of mineral resources of Sri Lanka.

2.5 United Nations, Division of Natural Resources and Energy, New York

16. No specific publications on iron ore or related issues has been prepared by this UN Division during 1988 to 1990.

2.6 United Nations Industrial Development Organization - UNIDO

17. The UNIDO's Global Report 1988/89 (ID/360) has a chapter on the iron and steel industry. UNIDO's activities in the field of iron ore, iron and steel have concentrated on technical assistance to developing countries in accelerating the exploitation of metallic ore resources and in processing them.

2.6.1 Atlas of the African Industry - Iron and Steel, Vienna, June 1990. Available in English and French.

18. This publication is based on a recent survey carried out by UNIDO under the programme of the Industrial Development Decade for Africa - IDDA; it covers four main areas: Part I presents a comprehensive and illustrative series of geographic, demographic and economic data of Africa; Part II shows the African production and consumption of steel; Part III presents a current survey of the iron and steel industry in Africa; Part IV shows the region's resources of iron ore, coal, oil, natural gas, ferro-alloys and water.

2.7 International Labour Organisation - ILO

19. The International Labour Organisation held its Fifth Tripartite Technical Meeting for Mines other than coal mines in Geneva from 28 March to 5 April 1990. The note on the proceedings of the meeting will be published later in 1990. Background documentation prepared for the meeting included:

2.7.1 Report I - General Report - Sales No. ISBN 92-2-107107-7, Geneva 1990

20. This report deals with action taken in the various countries in the light of conclusions and resolutions adopted by previous Tripartite Technical Meetings; steps taken by ILO to carry out studies and inquiries proposed at previous meetings; and recent events and developments in mines other than coal mines.

2.7.2 Report II - Conditions of work and related legal protection in mines other than coal mines - Sales No. ISBN 92-2-107171-5, Geneva 1990

21. The report analyses the legal protection afforded to workers as regards hours of work in mines by labour legislation, collective agreements, arbitration awards, etc; it also describes methods of financing and organizing welfare services.

2.7.3 Report III - New work processes in mines other than coal mines - Sales No. ISBN 92-2-107172-3, Geneva, 1990

22. The report examines new mining processes and their effects on employment and training requirements and the need for employment and social policies to cope with these developments. It includes a chapter on recent technological developments, with a section on iron ore mining. Linkages between technology, output and employment are discussed along with the training implications of technological change.

2.7.4 Other studies by ILO, published as Working Papers of a preliminary nature. The studies have been circulated in a limited number of copies and are intended to stimulate discussion and critical comments. The reports listed below have been prepared under the Sectoral Activities Programme, and the World Employment Programme Research.

- Technological change in the iron and steel industry and its effect on employment and training, by S. Moinov, Working Paper No. 27, Geneva, ILO, 1990.

- Productivity, employment and working living conditions in the iron and steel industries, by O.A. Stepanov, Working Paper No. 15 - Geneva, ILO, 1988.

- The Indian steel industry: growth, efficiency, problems and prospects, by A. Ghosh, Working Paper No. 20 - Geneva, ILO, 1988.

- International structural change in the steel industry: a North-South perspective, by B. Keeling, Working Paper No. 30 - Geneva, ILO, 1990.

- Technological change, employment and training in United States' metal mining, by S. Miller, Working Paper No. 206 - Geneva, ILO, 1990.

3. Other international organizations

3.1 World Bank

23. Publications with analyses of minerals and metals, including iron ore, iron and steel are:

3.1.1 Quarterly Review of Commodities Markets - Washington, March 1990

24. This paper is an office memorandum for external circulation prepared by the International Commodity Market Division of the World Bank/International Finance Corporation. It reviews briefly market developments, including those for iron ore and steel (in paras. 131 and 132). A price index based on 33 non-fuel commodities is also presented.

3.1.2 Half Yearly Revision of Commodity Price Forecasts - Washington, July 1990

25. This memorandum for external distribution presents a set of tables of the latest forecasts of primary commodity prices including iron ore. Projections of commodity prices cover the period 1990 to 2000.

3.2 International Monetary Fund - IMF

3.2.1 Primary Commodities - Market Developments and Outlook, Washington, June 1990

26. This report is prepared by the IMF Commodities Division, and relates to market developments and outlook for primary commodities, including mineral, and metals such as iron ore and steel. Particular attention is given to market price movements and the factors underlying these movements.

3.3 General Agreement on Tariffs and Trade - GATT

27. So far the GATT has not published any specific studies on iron ore, iron and steel. These products have been included in the list of products to be examined by the Negotiating Group on Natural Resource-base Products. The GATT secretariat is compiling and examining relevant material, particularly data on trade and trade policy including tariff and non-tariff measures applied to ferrous metal products.

3.4 Organization for Economic Co-operation and Development - OECD

3.4.1 The Steel Market in 1988 and the Outlook for 1989 - OECD Sales No. ISBN 92-64-23282-6, Paris, 1989

28. This annual report normally appears in July in the context of the work of the OECD Steel Committee. It provides a detailed analysis of the steel market, pointing out the main features and market developments in the preceding year, as well as the outlook for the current year. It covers overall aspects related to steel supply, demand, trade and capacity, as well as developments in the steel market by area for both OECD and non-OECD countries. It also contains a brief analysis with data regarding employment in the steel industry of the OECD countries.

3.4.2 The Iron and Steel Industry in 1989 - OECD Sales No. ISBN 92-64-03293-2, Paris, 1989

29. This annual report is usually published in November. It is basically a statistical compendium presenting about 30 tables containing data related to the iron and steel industry. Production, consumption and price indices of the raw materials used in iron and steel-making are also presented, mainly for iron ore, manganese ore, coke and ferrous scrap.

3.4.3 The Role of Technology in Iron and Steel Developments - OECD Sales No. ISBN 92-64-13252-X, Paris, 1989

30. This report examines the main iron and steel production processes used in five newly industrializing economies, namely Brazil, Republic of Korea, Mexico, Taiwan, Province of China, and Venezuela, as compared with the

OECD area. It raises the question of whether the new processing routes, and new iron and steel products now favour the newly industrialized countries or, on the contrary, represent a significant asset for countries in North America and Europe, along with Japan, which have been industrialized for a longer period of time.

3.4.4 Mining and Metallurgy Investments in the Third World: The end of large projects? OECD Sales No. ISBN 92-64-13382-8, Paris, 1990

31. This book, published by the OECD Development Centre, examines in detail nine major mining projects in Africa, Asia and Latin America including two important iron ore projects: Carajas in Brazil and Guelbs in Mauritania. The report discusses the merits of the investment decisions: success or failure of each project. It includes an analysis of the global evolution of investment in the mining sector, notably the substitution of foreign direct investment for official multilateral financing, and draws conclusions for potential foreign investors and for public authorities in developing countries.

3.5 Commission of the European Economic Community - EEC

3.5.1 General Objectives - Steel 1995, Brussels, 1990

32. This study is the latest of those carried out by the EEC Commission every five years. The report is divided into three main sections. Part I, examines the key factors for identifying future trends, including technological innovation and the new trends in the world steel market. Part II analyses the market for steel products in the Community and presents forecasts for 1992 and 1995. Part III deals with the main factors of steel production, including in Chapter IX a detailed analysis of future trends on the raw materials market, with a sub-section on iron ore.

3.6 International Iron and Steel Institute - IISI

33. The most recent IISI publication on iron ore issues was the Future World Supplies of Iron Ore in 1989, already listed in the previous bibliography. The IISI Committee on Raw Materials is organizing a seminar to be held in 1991 on "Recent Changes in Iron Ore Steel-making Technologies and their Impact on Raw Materials and Energy Requirements". Concerning steel-related issues, the report mentioned below was published by IISI in early 1990.

3.6.1 Inter-material Competition: An analysis of general trends, Brussels, 1990

34. This report analyses the substitution of iron and steel by other materials such as aluminium, plastic, cement and wood in industralized countries. Examining trends over the past 15 years, it concludes that, in terms of tonnage used, steel has lost ground to aluminium and plastics, partly due to the improvement of properties in steel, which enable lighter sections to be used but also partly due to the better corrosion resistance and ease of forming of aluminium and plastics. The study finds that steel still remains the foremost material for most market sectors but the advance of alternative materials is particularly noticeable in equipment for transport, packaging and containers and machinery - sectors which together account for 30-50 per cent of steel consumption.

3.7 Latin American Iron and Steel Institute - ILAFA

35. In addition to its regular publications, ILAFA published four major studies on the iron ore industry in Latin America, presenting an overview of reserves, mines, the qualitative and quantitative evolution of production, exports, internal consumption, industry structure, infrastructure, etc. as well as a detailed country analysis, as follows:

3.7.1 The iron ore industry in Argentina 1960-1985, Chile, 1988.

3.7.2 The iron ore industry in Chile 1960-1988, Chile, 1988

3.7.3 The iron ore industry in Venezuela 1960-1988, Chile, 1989

3.7.4 The iron ore industry in Brazil 1960-1988, Chile, 1990

3.8 South-East Asia Iron and Steel Institute - SEASI

36. In addition to SEASI's regular publications SEASI Quarterly Journal, SEASI Directory 90, and SEASI Steel Statistics for member countries, there are other recent studies published by this Institute of particular interest to iron ore:

3.8.1 DRI and Scrap as raw materials in steelmaking, Kaohsing Seminar, November 1987.

37. This volume contains the proceedings of the above-mentioned seminar including all the technical papers presented on various aspects of the subject.

3.8.2 Other recent publications which might be of interest include: "Steel in Construction, Busbave Seminar, 1988; "Modernization and Recent Developments in Electric Ore Furnace and/or Bar/Rod Mills", Korea Conference, 1989; and "Wire and Rod Mill and/or Mini-Mills, Osalea Seminar, November, 1989.

3.9 Arab Iron and Steel Union - AISU

38. In December 1989, under AISU's auspices, the Third Symposium on Iron Ore was held in Noukchott (Mauritania). The Symposium, which was followed by a visit to SNIM's operations, discussed the following themes: mining technologies, iron-ore processing methods; iron-ore pelletizing technology; international market of iron ore; and integration in the Arab industrial sector, in general, and in the iron and steel industry, in particular. The Symposium's main recommendation on behalf of the Arab Iron and Steel companies was for the realization of Mauritania's pellet project to produce 5 million tons of pellets a year. This would contribute to feeding the direct reduction mills in North Africa and would supply pellet-feed for Bahrain's pellets plant; it would be a practical model of industrial integration and co-operation among Arab countries. Some papers presented to the Symposium have been published in subsequent issues of Arab-Steel, a monthly review issued by the Arab Iron and Steel Union.

3.10 American Iron Ore Association - AIOA

39. This Association does not publish studies or articles on iron ore. However, the AIOA does issue a comprehensive collection of detailed iron ore statistics of the iron ore industry in the United States and Canada. The most recent issue in this series is: Iron Ore 1988, Ohio, USA, June 1989.

Part II

RELEVANT STUDIES AND PUBLICATIONS COMMUNICATED BY NATIONAL GOVERNMENTS

Japan

40. The information provided by the Government of Japan concerning iron ore studies was a table of Japanese statistics on production, imports and apparent consumption of iron ore for the period 1980-1988.

Malaysia

41. The Department of Mines of Malaysia, whose function is to oversee mining and its related activities, did not carry out any study on iron ore issues during the 1980s.

Mauritania

42. During the 1980s, studies related to the development of two projects were carried out in the country.

(I) Guelbs Project: In view of the depletion of the rich ores from the Kedia deposit, where exploitation started in 1962, SNIM - Societé Nationale et Industriel de Mauritania, has carried out research on the exploitation of the ferrous quartzites reserves. The project was set for an open-mining extraction of poor ores (37 per cent Fe) for concentration and upgrading the ore to 64-66 per cent Fe. It was designed to operate in two phases: Phase I would aim at an annual production of 6 million tons of concentrates starting in 1984; Phase II envisaged an annual production of 12 million tons from 1986 onwards. The first phase of the project was inaugurated in June 1984, as planned.

(II) Pellets Project: The Arab Association of Metallurgical Industries - SAMIA, created in 1975, envisaged in the framework of its initial conception of heavy industralization, the elaboration of a pelletizing plant in Noudhibou (Mauritania). This project was initially foreseen for an annual capacity of 500,000 tons of pellets with a possibility to reach up to 2 million tons. Preliminary estimates of investment were set at 197 million dollars with execution by the Japanese company Kobe Steel. Implementation of this project has, however, been postponed, due to SAMIA's new orientation towards other sectors.

Mexico

43. The Secretary of Energy, Mines and State-owned Industry, under its sub-secretariat of Mines and Basic Industry, carried out the following studies on iron ore:

Description of the Mexican iron ore, Mexico, 1987

44. This study describes and examines the location and potential of the country's iron ore reserves, the mining methods amenable to develop these deposits, its requirements for crushing, blending and concentration; its potential for agglomeration, processing and transportation; and finally the resource potential of the reserves. The report presents a table listing Mexican iron ore geological reserves by region. Total reserves have been estimated to be 888 million tons, of which 239 are proven reserves.

Strategical and technical plan in the field of iron ore, Mexico, 1989

45. This study, carried out by the Raw Materials Division of SIDERMEX, discusses the conclusions and implementation of the 1988 strategic plan. It gives an account of the 1989 work programme of Sidermex regarding geological surveys, exploitation, plans for production of concentrates and processing into pellets or sintering, etc. It also defines the plan of action and investments of Sidermax for the period 1989-1993.

Iron Ore programme for 1990-2000, Mexico, 1989

46. This study analyses the different alternatives to secure supply of iron ore to the Mexican integrated iron and steel industry. It discusses each alternative and makes proposals, based on projections for supply/demand for the next decade, with a view to avoiding iron ore shortages and/or national under-utilization of capacities.

Peru

47. A study of the activities of Hierro-Peru during the 1980s and perspectives for 1990 has been transmitted by the Peruvian Government. It describes the minero-metallurgical activities of Hierro-Peru as regards the production of iron ore and other related products. While emphasizing that the main objective of the company is to create wealth and to contribute to the socio-economic development of the country, the study provides detailed information about the localization of the mines, the process of production, capacity, investment plans, etc. The main commercialization and marketing problems faced by the company are examined as well with regard to trade in products on the international market; key statistical data are given. The operational plans of Hierro-Peru for 1990 are described along with an analysis of the world iron-ore market situation in a discussion of features influencing overall demand, supply and prices of iron ore.

Portugal

48. The Portuguese Government has informed the secretariat that there have been no recent studies published about the production, trade, or the evolution of consumption of iron ore in this country.

Senegal

49. The Senegalese Government provided a descriptive note regarding the Miferso Project (Mines de Fer du Senegal Oriental). The iron ore deposits, of which proved reserves have been estimated at 300 million tons, are situated in the south-east zone of Senegal near the Faleme River on the border with Guinea. The project envisages an annual production of between 8 to 10 million tons of high-quality iron ore (60 per cent of lump ores and 40 per cent of sinter-feed) for at least 30 years. The commercial strategy is to supply 85 per cent of the ore to western Europe and the Mediterranean basin, and 15 per cent to South-East Asian countries.

50. The mining project itself comprises the mining installations and port facilities in Barguy, about 28 km from Dakar. The distance between the mine and the terminal calls for 740 km of railway. It is noted that, even if the railway system is not directly integrated into the mining project, the

necessary railway studies needed to assure a coherent transport system between the mine and the port are being supervised by the company MIFERSO. The port project infrastructure which is being developed to load vessels of up to 170 thousand DWT, had also been supervised by MIFERSO up to the stage of implementation. Investments for the mining project, sensu stricto, are at present estimated at $US 270 million . Details about specifications and mineralogical composition of the ores have also been presented, based on tests of representative samples carried out in laboratories in the Federal Republic of Germany.

Sweden

51. No relevant studies dealing with the production and consumption and/or trade in iron ore have been published by the Swedish Government in the 1980s.

United States

52. The most recent publication on iron ore of the United States Department of the Interior, Bureau of Mines, issued under its series Mineral Yearbook is: Iron Ore 1988, by P.H. Kerch, Washington, 1989. This 40-page report includes 15 statistical tables and contains qualitative and quantitative data on United States production by region, consumption and stocks of iron ore. It describes United States legislation, government programmes, and employment in the field, as well as transportation, prices and foreign trade issues. The report also presents an overview of world iron ore capacity and a world review of the international market situation including country information.

Part III

SUMMARIES ON SPECIFIC TOPICS

A. Iron ore mining capacity and investments

53. The report Review of the current market situation and outlook for iron ore - 1990 by UNCTAD points to the fact that because of the depletion of some deposits, the restructuring of the iron industry and the consequent closure of a number of inefficient mines, and the 1981-1986 depressed market conditions which discouraged investments in new mines, the over-supply situation which characterized the iron-ore market during the first half of the 1980s had disappeared by the end of the decade. In addition, as demand remained strong for a long period and occasional disruption of supplies occurred, temporary shortages of some types of ores were inevitable in 1988/89. This, situation alerted producers and consumers to review commitments and investments in order to assure long-term supplies. The report also noted that, despite renewed interest for some dormant projects, capital investment plans for iron ore had decreased over the past decade. Recognizing that plans do not mean effective decisions, the report states that even if there were a number of new and expanding capacity projects planned for the near future, only those with financial backing will be implemented. The report also draws the attention of potential investors to the fact that additional capacity should be studied carefully, in order to avoid excesses and a new prolonged period of over-supply or depressed prices in the coming years.

54. The study by ECA, "Assessment of iron ore production in West Africa during 1979-1987 and prospects beyond 1987", emphasizes that the West Africa region produced 87 per cent of African total iron ore production in 1979 (equivalent to 2.9 per cent of world production), compared to 69 per cent (equivalent to 2.5 per cent) in 1987. It notes an important drop of iron ore imports by EEC from Africa over the last 20 years, as well as the growing demand for pellet-feed and pellets in the EEC region compared with the stable level of imports of fines ore. Noting that one of the reasons for this decline may be the poor quality of African ores compared to the rich ores from Brazil or Australia, the study makes a distinction between the African rich and poor deposits, placing in the first class the Faleme and Kondekouzou deposits of Senegal, and the Nimba deposits of Guinea. Regarding the perspectives for the West Africa iron ore industry, four main features are analysed: (i) the need to improve the existing capacity; (ii) the need to develop new production capacity; (iii) the steel market situation after 1987; (iv) new outlets for the African iron ores.

55. In Iron Ore, the study by the United States Bureau of Mines, a table showing world pelletizing capacity at the close of 1988 presents data of rated capacities of 81 pelletizing plants in 25 countries. According to the study, world total pellet capacity is 264 million tons, of which 102 million of capacity is located in North America; 39 million in South America; 100 million in Europe, including 80 million in the USSR; 13 million in Asia; 6 million in Africa; and, 4 million in Australia.

56. The EEC study General Objectives - Steel 1995, in analysing the factors underlying the decline in interest over the last few years in direct holding by the Community steel industry in mining operations in third world countries, notes that the greater the attempt of developing countries to apply

independent economic policies, the lower the interest on the part of the Community steel industry in direct financial involvement in these countries' mining industry. The study points out that economic and political instability, and certain mining legislation makes the EEC steel industry hesitate to make new direct investments in the mining sector of non-Community countries. Pointing to the dangers of the supply security policy, based on long-term contracts concluded with producers possessing large and rich deposits, the study notes that such holdings lead to increased dependence, due to the limited number of rich deposits. It is underlined that this could result in an oligopolistic market, which is certainly not in the best interest of the steel industry. The study suggests that one way to guarantee supplies would be to lower the quality requirements and to contemplate pre-treatment of ores by blast furnaces operators. The advantage would be to put an end to costly new exploitation while contributing to a diversification of resources and points of origin.

57. While there is no danger of shortage of good high-grade ores in the medium- or long-term, the EEC Commission considers that as the earth's surface has been increasingly studied it is unlikely that new large, rich deposits will be found in the future. Therefore, the study recommends that the Community steel industry participate actively in mining projects under discussion but not yet in operation, such as the Mifergui in Guinea, and the Falemé in Senegal.

58. The OECD book entitled Mining and Metallurgy Investment in the Third World: the end of large projects? provides a detailed behind-the-scenes look at the objectives and behaviour of the often numerous participants in developing countries' mining investments - local and foreign mining companies, governments, suppliers of technology and equipment, purchasers or marketers of output and a myriad of suppliers of financial capital - as well as their complex interaction and evolution. Apart from the interpretation of the dynamic growth of the mining and metallurgical industries, the major findings of this study can be summarized as follows: (i) exporting raw materials, and thus exploiting a natural comparative advantage, no longer guarantees a net transfer of resources from the outside world to the host country, because the destabilization of the commodities market makes financial benefits very uncertain; (ii) the intervention of development banks and co-operation organizations promoting investments in the third world through projects oriented towards international markets, so as to promote the transfer of resources, has resulted in the funding of financially vulnerable operations; (iii) operations which have encountered technical, commercial or financial difficulties have generally resulted in adjustment measures which have furthered the industrial experience of the host countries, due to efforts made by national actors to make the operation profitable; (iv) the mining countries heavily dependent on their minerals exports are the ones having the greatest difficulty in adjusting their mining enterprises; and (v) the economics of a mining and metallurgical project are difficult to reconcile with the risks associated with the increased instability of the commodities market. The study concludes that in future, only close links between commodities producers and consumers will make it possible to limit the commercial risk of operations far upstream in the production chain.

B. Evolution of demand and supply of iron ore or steel

59. Examining the future trends in world steel consumption, on the assumption that fundamental changes had occurred in steel intensity and in specific steel consumption, the ILO's report International Structural Change in the Steel Industry - A North-South perspective notes that the expectations for the industrialized countries in the earlier years were for a continuing decline in steel consumption; but in 1988 the view was taken that as yields in the industry approach achievable limits, and the pace of changeover towards lighter, stronger steels moderates, it is reasonable to assume that the decline in crude steel consumption in these countries will tend to level off. As regards the developing countries, since 1987 a more optimistic view has been taken, showing in 1989 a growth rate of 4.3 per cent per annum. On the other hand, the study comments that the forecasts for the centrally planned economies have tended first to rise and then to fall over the years; they assume continuing growth in China's steel consumption. The report concludes that the steel industry always has been and always will be a cyclical industry, explaining that the reason for this is that at least two-thirds of the markets are in capital goods whose purchasers determine when they will buy according to their perceptions of future prices and of future demand for their own products.

60. The EEC Commission study on General Objectives for Steel 1995, based on the foreseeable development of the steel user sectors, on consumption by each of steel products, and on trends in specific steel consumption, forecasts a real consumption of steel products in the EEC region at 110.7 million tons in 1992 and 114.7 million tons in 1995 (compared with the apparent consumption of 111.7 million tons in 1988); this represents an annual growth of 1.4 per cent for the reference period (1986-1988), a rate of growth markedly lower than that of GDP. The study also foresees a shift in demand towards more elaborated products. It points out that these forecasts indicate a structural trend towards stability over the period until 1995, although this does not rule out normal cyclical fluctuations which depend on other variables such as stockpiles, the trading behaviour of producers, dealers and users, and, any pressure from imports.

ANNEX

DIRECTORY OF RELEVANT ORGANIZATIONS

For inquiries and acquisition of the publications listed in this bibliography, please contact directly the concerned organizations:

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